Metarbitrariness?

Book 2 : chart (expanded)

2012

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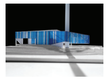
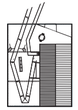
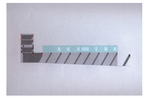
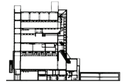
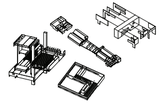
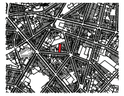
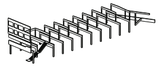
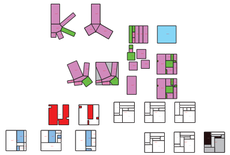
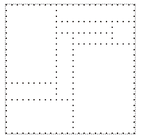
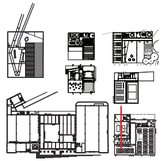
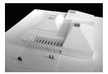
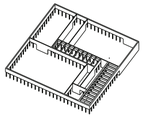
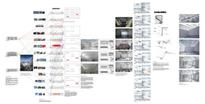
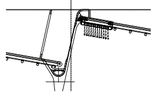
	1. praxemes	2. discovery process	3. community	4. praxeme analyse	5. resonance	6. scale models	7. concepts	8. context	9. plans (space & functionality)	10. structure	11. materiality	12. Frameworks
A. metaphorical specificity												Heterogeneity
B. structure : flexible principles												Creative Input and Stepping Back
C. spatial genericity												Duality
D. structure & architecture : coincidence												Paring back
E. language through materiality												Additive Layeredness
F. contextual autonomy												

A : VERTIGO - METAPHORICAL SPECIFICITY

Projects can be identified through the concise formulation of an hypothese, that defines their specificity. This specificity is metaphorical in nature. Such hypothese can address the program, the relationship to the context, or even be external to the architecture itself, but always refers to architectural features.

This metaphorical relationship can be concrete or abstract in nature. It can address typological, material, spatial issues.

If such hypothese about the project has been enounced with sufficient precision, it becomes the red line that will help to maintain the intrinsic qualities of the project, disregarding the difficulties, contingencies and necessary flexibility of the designing and building process.

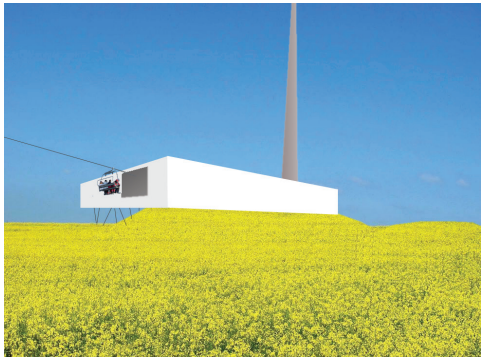
A1
Praxeme : Metaphorical Specificity

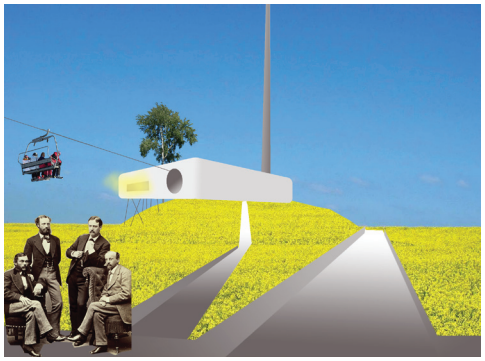
Collages are a way of constructing and injecting a reality into another one. In the case of the Vertigo, the collage fixed some parameters of the equation, and kept freedom for other dimensions.

The principle of the a more or less square shape, quite horizontal on a pronounced hill, was defined, but not the design of this shape. The use of a translucent material was decided, in order to give the sense of the content of the box, but not the material itself.

The collage evolved into a series of variations. To us, they all were quite equivalent explorations and did not have the ambition to represent a finished project. The client had some difficulties to understand what we wanted to show. Will it be white? Are you really planning a colza hill? Will it be rounded?

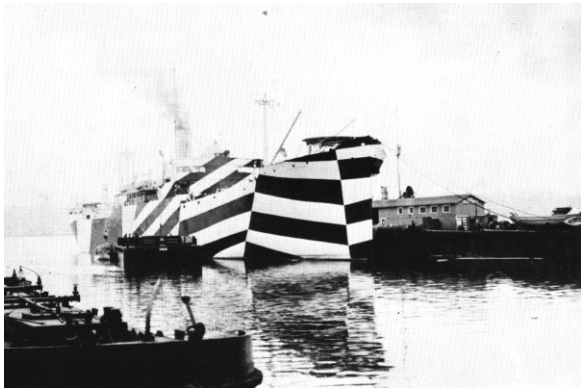
In theses collages, as in any series, the stable features have the same importance as the variations. They indicate where the red line lies, and what can be adapted according the contingencies of the project





A2
Metaphorical Specificity - Discovery Process

Double negative space
Michael Heizer 1969



USS West Mahomet, 1918

Weather project
Olafur Eliasson 2003

roofhouse
Tezuka, 2001

I can imagine these projects taking different shapes, being implemented in different contexts whitout losing their strength or consistency. They are resilient to all contingencies, thanks to their founding hypothese. This hypothese is strong (action), unique (new), recognizable (different), artifical (not natural), adequate (feeling of usefulness), efficient (it works).

The search towards the conscious expression of what's behind the uniqueness of a project.

"Nommer la qualité différentielle de la noix, voilà le but, le progrès"
"To name the differential quality of the nut, that is the goal, that is the progress"
(Francis Ponge)

A. Formal Sketch

The skin of the vertigo was given a quite arbitrary shape. Openings allow contact between the inside and the inside.

B. Contingencial fitting

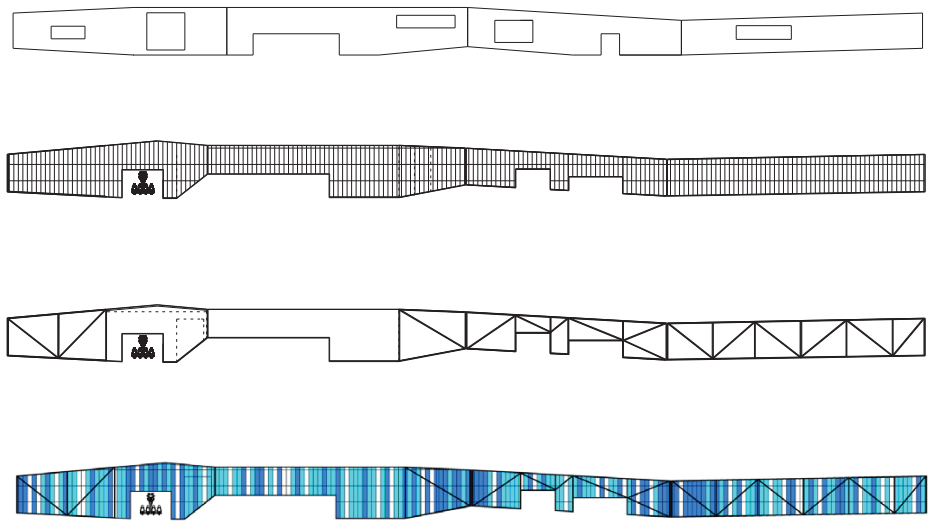
The openings were adapted to fit needs of the project : entrances, exits, emergency and technical accesses, shape of the existing structure, modulation to the size of polycarbonate panels.

C. Structural feedback

The structure becomes the “filling” of the project : it coexists, but its shape is not designed or dictated by the project.

D. Layered reality

Last minute coloring by the theme park’s direction : “You don’t want us to develop a colorless theme park, do you?”



Vertigo developed elevation

0 5 10m

Flagey (2003) - competition for the refurbishment of the Flagey square, Brussels

The square is a flexible lake expanding and retracting according to the use of the space.

Jassogne (2005) - Swimming pool and barn

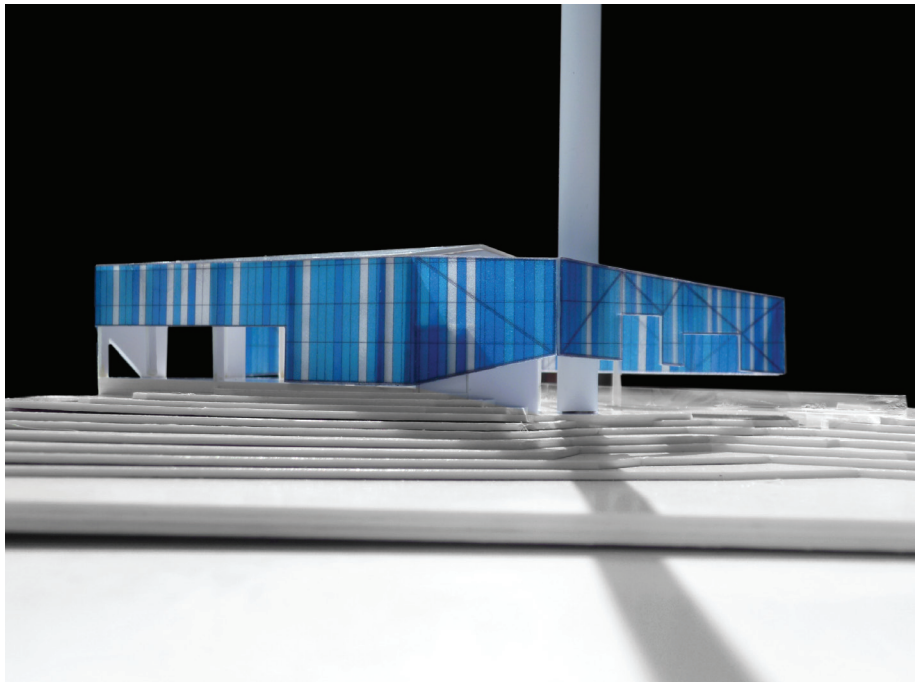
The “swimming pond” neighbouring the meadow is designed as a rough concrete rectangular natural pool, with a strong agricultural connotation. Feeding trough? Fountain? Manure pit?

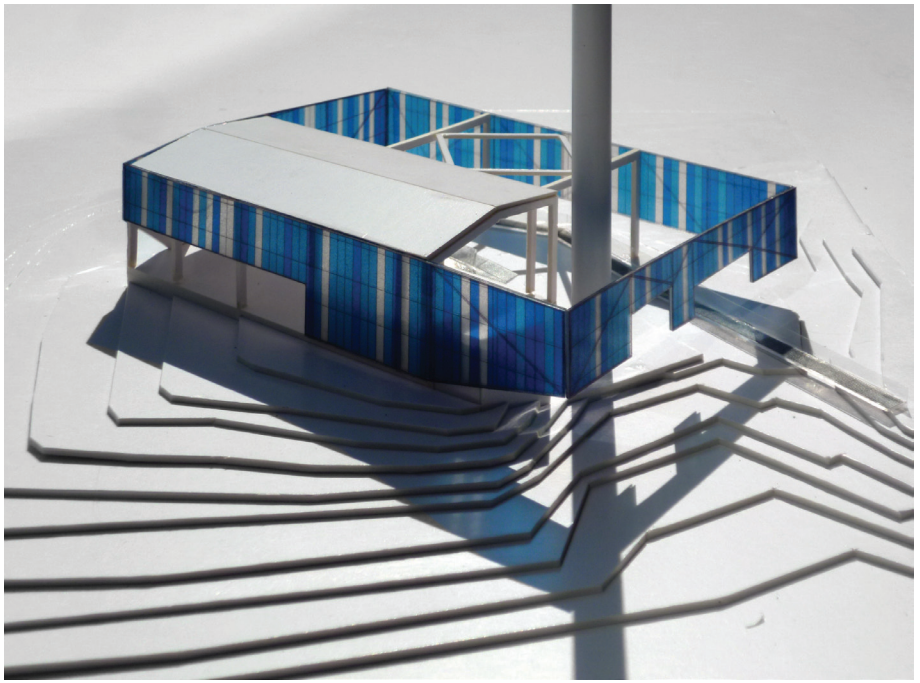
Vertigo (2007) - Theming of a ride in a theme park

The attraction’s station and queueline are enclosed in a light and industrial translucent skin, revealing the technicality of the attraction while preserving some mystery and untold presence.

Koknese (2005) - Competition for a memorial, Latvia

(dis)appearance: Dig away 30% of the island until just below the level of the Dagauva river, as a metaphor of the vanished Latvians.





Vertigo
model (2012) - printed plexiglass, foam cardboard, PVC pipe
scale 1/200

A6
Vertigo - Model

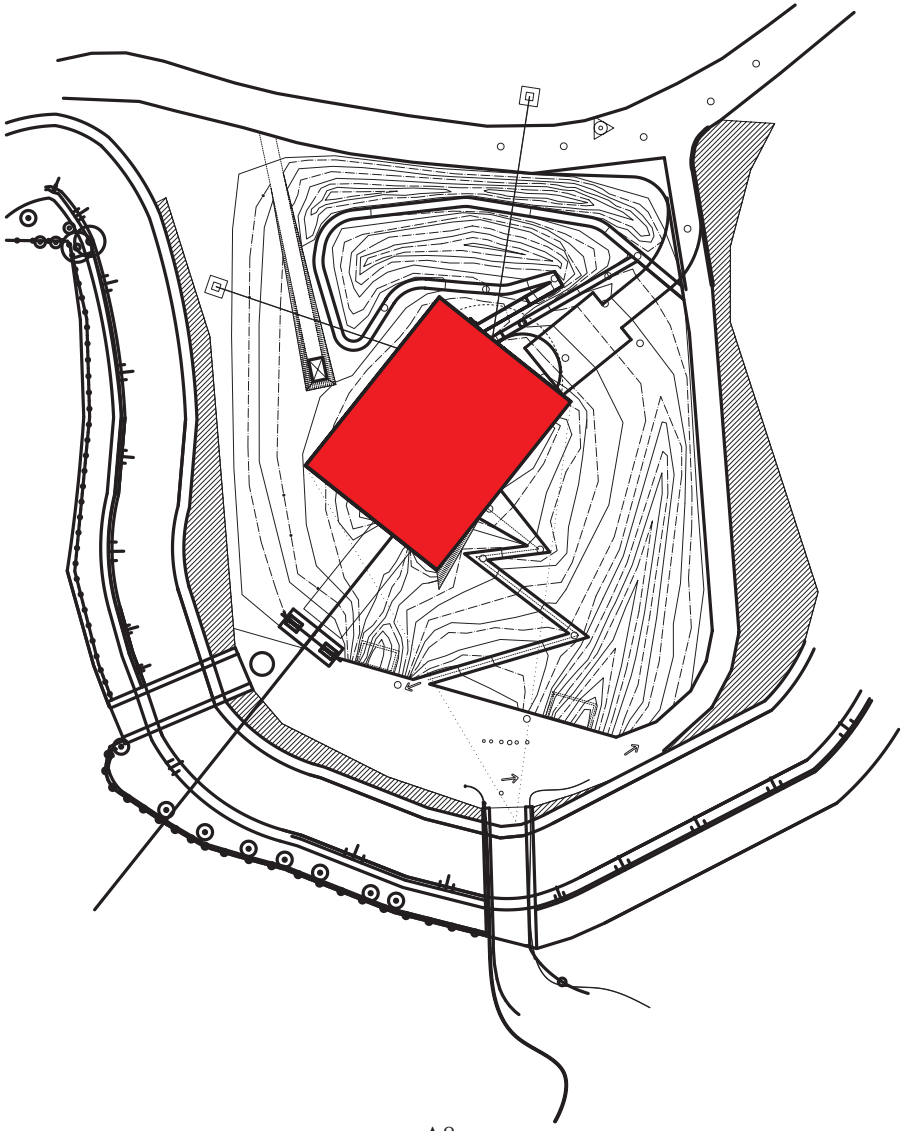
Vertigo (2007) - Theming of a ride in a theme park

The attraction’s station and queueline are enclosed in a light and industrial translucent skin, revealing the technicality of the attraction while preserving some mystery and untold presence.

Vertigo
conceptual collage (2006)

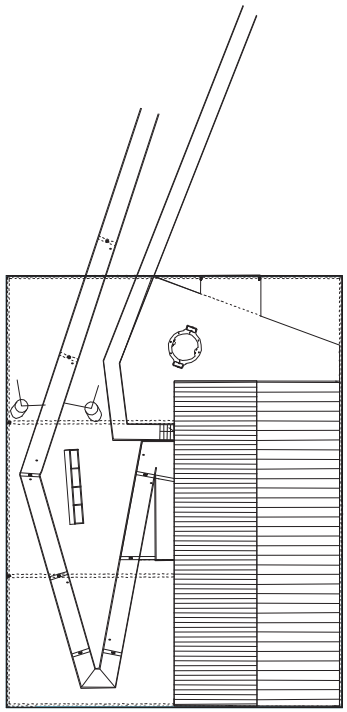
In theme parks, space is usually filled with bushes, paths, decors, shops, colors, flowers, trees. In reaction to this “horror vacui”, the space around the vertigo is completely freed of trees and constructions. After crossing the small river, on a bridge, between two white laquered walls, the blue, industrial barn or UFO seems to have landed on a virginal, grassy hill.

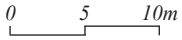
The diagonal position of the station was predetermined by the overall design of the ride and the constraint of the towers inside the park itself. We decided to magnifiy this seemingly arbitrary position in space through a simple, rectangular footprint, and by detaching the construction from the ground. This, in return, creates more emptiness around the building, a sense of freedom of movement.



A8
Vertigo - Context
0 10 20m

The rectangular footprint works like a treasure box. Inside the box, there is no order, no hierarchy. However, it seems that each elements finds its “most natural” location inside the recipient, avoiding conflicts and emptiness (a rule of maximal entropy, perhaps). The station building is placed in a corner. A void is managed in a corner. The zig-zagging footbridge bounce against the walls. The tower is placed in a left-over space. The single-queue-line is wrapped around the tower.





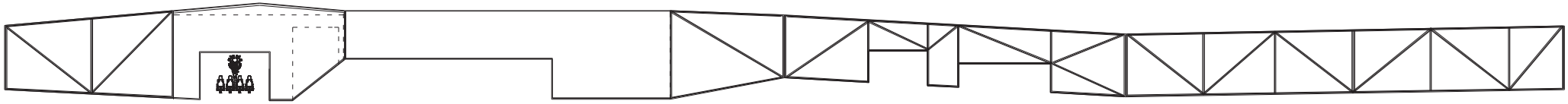
Vertigo

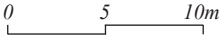
A9
Vertigo - Space (plans)

Coexistence of structure and architecture.

It happened more or less as follows.

First, we made a sketch.
Then, we asked the structural engineer to design a structure.
- “Well, what do you want for a structure?” he asked.
- “Well, I don’t know. It doesn’t matter, really. Make it cheap.”
As it didn’t work (It seems engineers need you to tell them what to do), we made a zigzagging sketch. Really, no more that a few lines.
- “You know, something like this, in galvanized steel. Put diagonals where you need them, don’t worry. Make it simple, rough and cheap.





A10
Vertigo - Structure

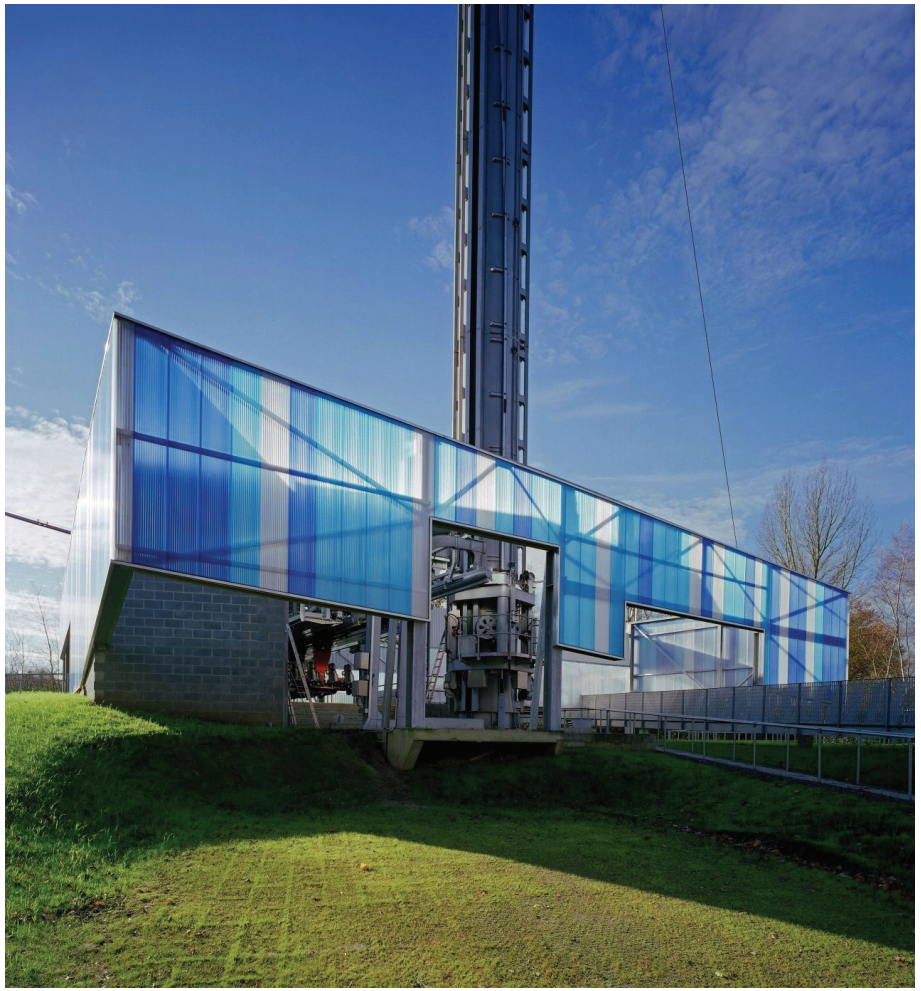
The polycarbonate cladding produces a pattern of vertical stripes. It confers a strong rule to obey for horizontal distances, so as to avoid any cutting in the length of the panels. In the vertical dimension, though, freedom is absolute. As a consequence, the horizontal dimensions and locations of the openings and the global size of the construction were carefully controlled. The edges are made of folded polycarbonate panels, in order to avoid edge profiles. The skin is continuous.

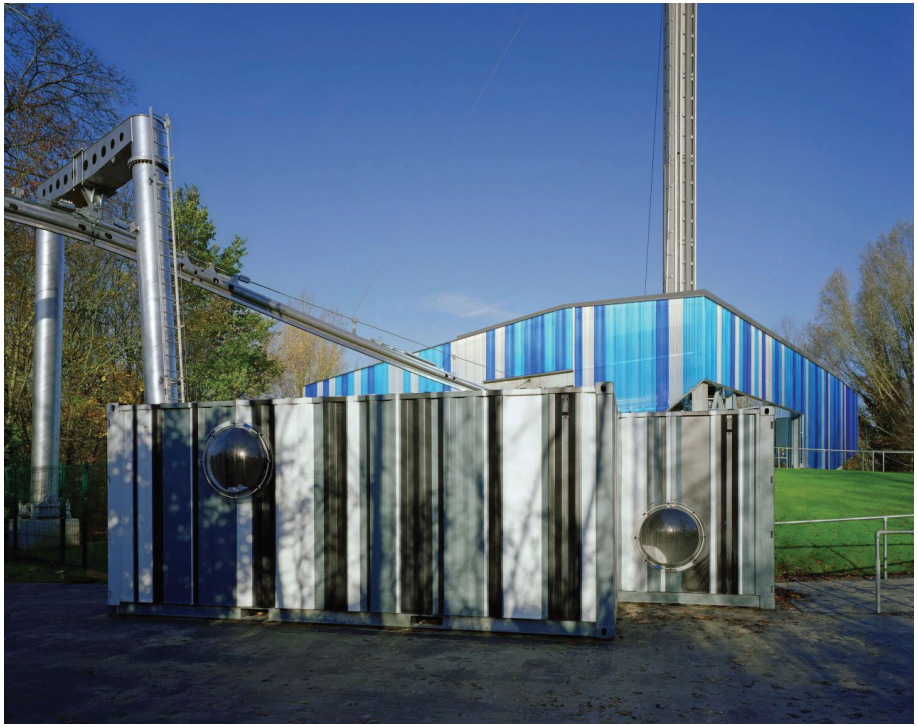
At the end of the process, when the theme park asked for colour in the project, the vertical panels became the natural support of a simple, random pattern of shades of blue.

This simple language of vertical stripes was also applied to other constructions, like the souvenir shop. Leaving its subordination to the constructive constraints of polycarbonate, it became a painted pattern.

Vertigo, AgwA, 2007
© M.-F. Plissart

A11 (a)
Vertigo - Materiality





Vertigo, AgwA, 2007
© M.-F. Plissart

A11 (b)
Vertigo - Materiality

November 2010

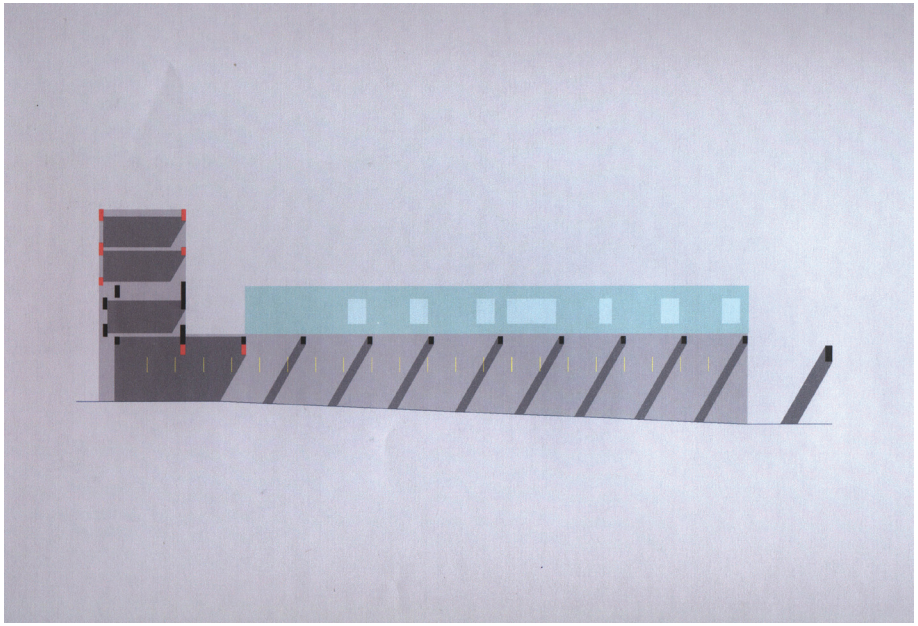
On a timeline, I highlighted themes at work in the projects. At first sight, these themes are not linked, as if each project is investigating something completely new and unpredictable. At this time, it was called an “operational dictionary”. It is a model of heterogeneity, it could go on indefinitely collecting new themes and operational tools, but does not allow an understanding of what underpins the coherence of the practice.

B : METAL - FLEXIBLE STRUCTURAL PRINCIPLES

Instead of constraining, expensive detailing and structural design, the definition of flexible structural principles make it possible to adapt to different situations, and to address the design and the construction process with ease, while preserving the intrinsinc quality of the project.

It doesn’t depend anymore on the quality of ornamental layers, whose cost are the first to be questioned.

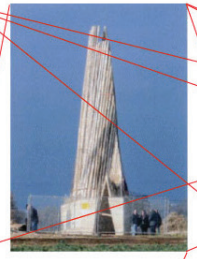
Such principles are typological in nature. They allow coherence and diversity at the same time.

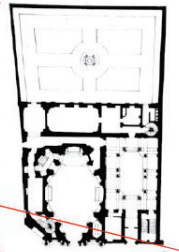


B1
Flexible Structural Principles

In november 2010, during the Graduate Research Conference in Ghent, the Metal project was detected as a major shift in the practice. This shift was brought or accompanied by simultaneous interest for the architecture of Zumthor, whose projects are part of the doctoral work of my partner, for baroque architecture and painting, for “The order of things” (Foucaut) and “The Fold, Leibniz and the Baroque” (Deleuze). This cloud interrelated and brought the intuition that projects before Metal were focused on the formulation of an hypothese (Metaphorical Specificity - A1), while later projects were introducing a sense of Genericity (C1).

Metal, however, was to be situated somewhere between the two. Not really a direct materialization of an idea, nor the search for generic principles. What might have been at work here is a multiplication of creative inputs (like a multiplication of projects inside the project) inside a coherent whole through the (then unconscious) formulation of common, yet flexible rules. In this case, they addressed structure : Flexible Structural Principles.





Baroque architecture
An allegoric materiality of skins

Zumthor
absolute control of constructive seeds dictating their rule

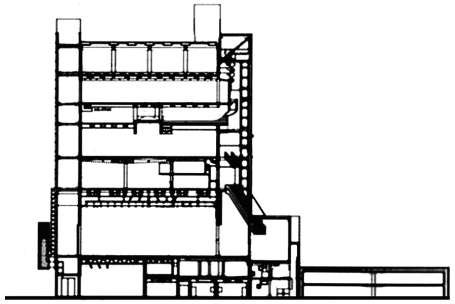
metal
2006-2009
sports hall, evening school, housing

Metal
A careful choregraphy of rough interventions
of which the structural ones share a common principle

Tunnel
stepping back, an almost absent designer

brussels central subway station
2008
competition

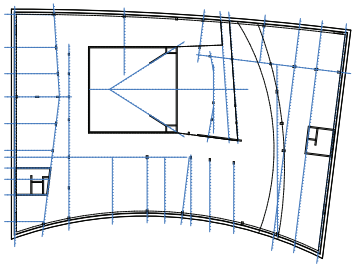
Cloud for a Shift
Harold Fallon, GRC nov 2010, Ghent



structural scheme ZKM Karlsruhe
OMA, 1992

Nantes architecture school,
Lacaton & Vassal, 2009

Zumthor
Sankt Benedegt Chapel, 1989



Herzog & De Meuron
Laban Center, 2003
© B. Vandenbulcke

Structural Strategies

In OMA's ZKM in Karlruhe, each level is an explicitly different structural system, based on the typology of the shear beam (Vierendeel). The multiplication of structural solutions is not dictated by necessity, it is a voluntary exploration of possibilities offered by a typology.

In the architecture school of Nantes by Lacaton & Vassal, the formal variations of the structure are made coherent through the use of a simple, industrial, half prefabricated concrete solution.

In the Sankt Benedegt chapel by Zumthor, it is not only the use of wood that confers coherence to the project. Though each constructive piece is different, they are all precisely shaped and dimensioned to fit and to be necessary in the global project. It is an assembled monolith.

The structure of the Laban center by Herzog & De Meuron consists of a recollection of pragmatic, local solutions. There is no search for geometrical or material coherence of the structure. Coherence is conferred by skins - it is a dual model combined to a seemingly complete let-go attitude towards structural issues.

the front facade of the new appartments forms a Vierendeel beam avoiding vertical supports

concrete beam on back was cheaper to maintain and paint black than to demolish

two black concrete beams reinforce existing structural elements

steel beams ensure horizontal stability of the skin : here also, vertical supports are avoided

The development of the project was very determined by the existing structure, and the constraints of a refurbishment project with little knowledge of the existing situation. What we knew, is that we wanted to free space as much as possible from structural elements like columns and walls. This was handled through local solutions that partly were developed on site. However, these can be considered as variations on a common structural principle of large beams and frames freeing space.

In the front façade, and autostable two stories concrete Vierendeel beam was added and forms a typological reinvention of the principle. In the rear facade, an existing concrete beam was discovered and we decided to maintain it withtout any reparation except black paint (preservation). Two existing beams were reinforced by two black concrete elements (transformation). The cladding of the back facade is supported by a long steel beam without vertical support (material transposition).

Structural analysis of the six key projects to illustrate the resonance of the praxeme of Flexible Structural Principles. These projects implement this praxeme very differently. Refer to the track of structural strategies in book 1 and to according pages of book 2.

I1 Vertigo : Independence
The shape of Vertigo's polycarbonate skin has been defined according to a set of constraints, resulting in an irregular shape avoiding contact with the ground. The structure sustaining the skin is a pragmatic triangulation which is let as is. The coexistence of the structure and skin, each of them following its own rules, becomes a main condition of the project.

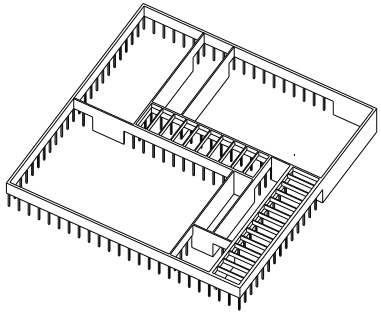
I3. Philippeville : Multiplication
The porous, dotted contour of the spaces of the philippeville restaurant are materialized as simple, identical wooden columns, distibuted over the whole building with an identical interdistance. The multiplication and density creates a sense of collectivity. This in return allows derogations to the rule : suppression of some columns, filling of the space between other, and differentiating solutions for the roofs.

I4. Carré des Arts - Integration
In this project, we face a hybrid system, a classical differentiation of skin and structure. However, the structure is not merely a servant support of a skin: they complement and define each other. The structure is shaped in order to integrate all architectural dimensions, and minimize the necessity of non structural accessories.

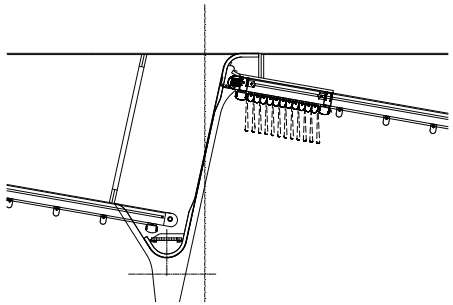
I5. Péronnes - Deformation
This sports center host a variety of buildings, which share the feature of panoramic windows on the ground level, that are completely free of columns. A system om concrete walls with cantilevers suspend the facade beams. This scheme is deformed and adapted to the variable geometries and situations.

I6. Fort VI - Limited Collection
The spatial organization of the Fort VI sports school can be considered as a layered variation of the Philippeville project. Consequently, the structural issue is complexified. Instead of looking for a structural common denominator through typology or shape, we decided to work with one material. The structure proposes a variety of typologies and dimensions, and ensures coherence through the systematic use of concrete.

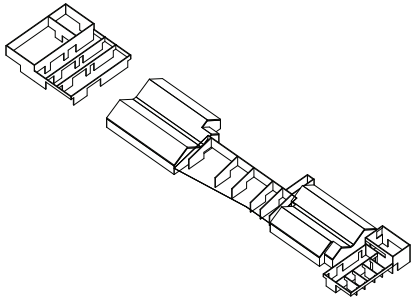
I1 - Vertigo



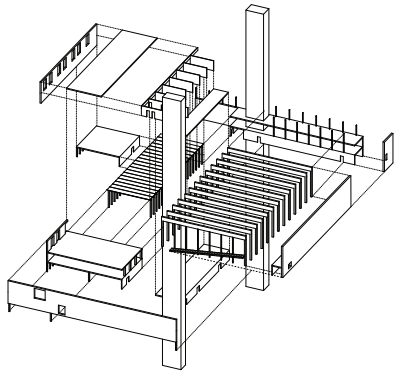
I3 - Philippeville



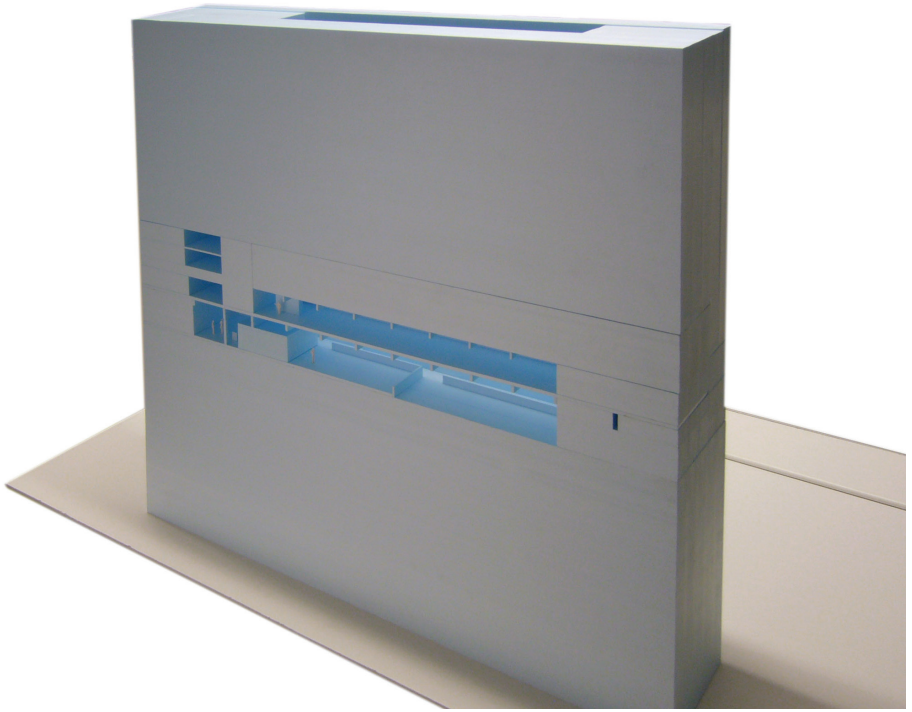
I4 - Carré des Arts

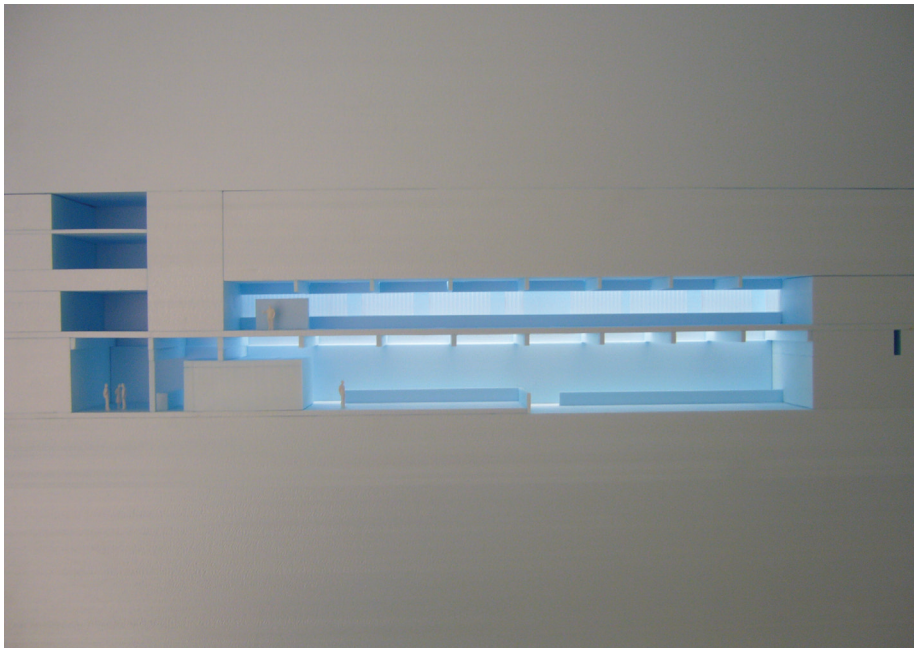


I5 - Péronnes



I6 - Fort VI





Metal
model (2009) - blue styrofoam, polycarbonate sheets
scale 1/100

B6
Metal - Model

“In this project, at this time, I am wondering if what I explained about the “formulation of an hypothesis” is still ongoing. I’ve sometimes got the impression that the projects are somehow ‘conceptless’, or at least, that “concept” is not a very efficient word at explaining what is ongoing”

excerpt from an e-mail containing the report of GRC EUR of april 2010 , in which the Metal project was discussed.

Perhaps there is a confusion in the “disappearance” of the concept as a central focus in the project, that is linked to the multiplication of concepts, like in the Metal project.

There is an evident concept of placing a box on top of the building, like an independent container floating above the existing garage. But in the end, this is only a very local intervention in the project, though a spectacular one.

There is a star-shaped luminary in the entrance hall.

There is a bar covered with pink tiles for the athletes of the musculation club.

There is box-in-the-box element for the sanitary rooms.

There is a wall made of pivotating black board panels on the first floor.

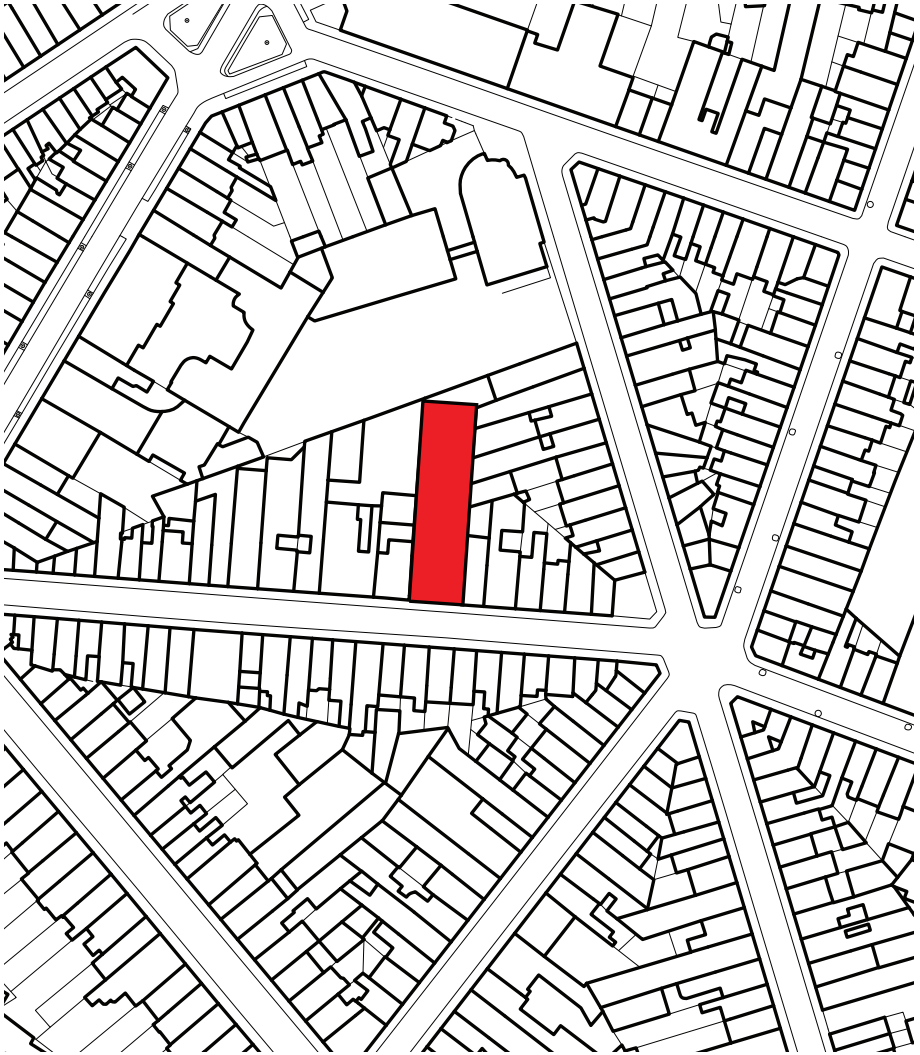
Also, the structural elements can be considered as independent interventions.

All these elements can be considered to be projects inside the project. Then, the project becomes a choregraphy of local projects. Perhaps the multiplication of concepts was a way to address a more complex program and building.

Metal
web-found image from 2006, source unknown

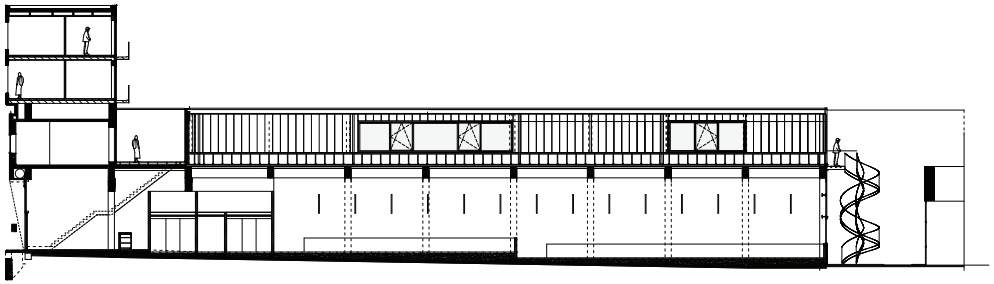
As a former industrial plot in a very dense urban context, three sides of the four were closed by blind walls. The footprint is slightly simplified in order to manage a triangular patio at the back, letting light and air in. On the streetside the slight step back of the existing, low building is balanced by the volume on top of the building, that is aligned to the neighbouring houses.

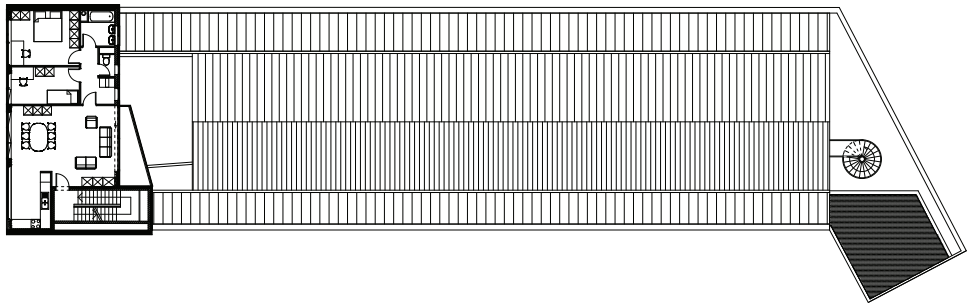
Subtle adaptations of the footprint make it simultaneously more independent (a simple rectangle) and modify the relationships of the building with the context.

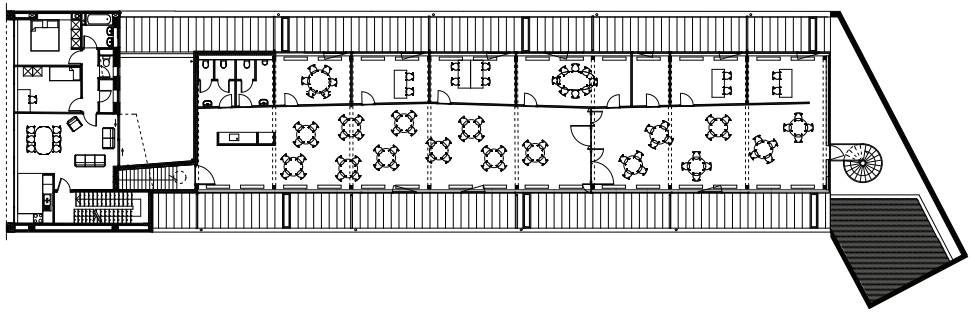


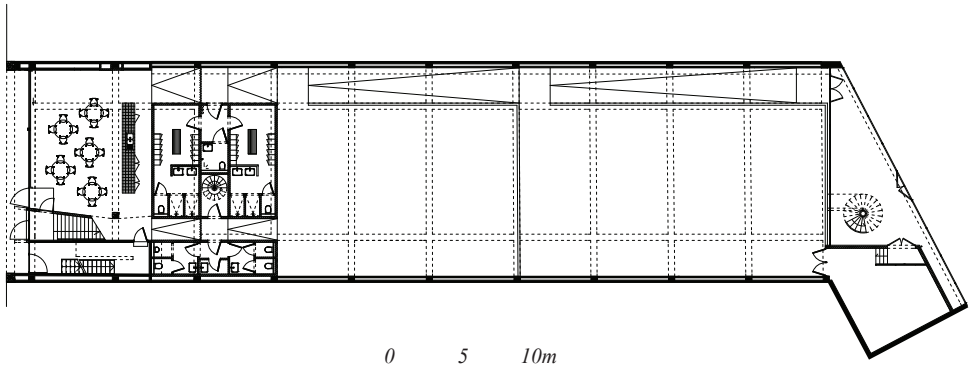
B8
Metal - Context

0 20 40m









Metal

B9
Metal - Space (plans)

Variations on a Flexible Structural Principle

The existing building consists of large concrete frames on the first floor, that liberate space from disturbing vertical structural elements between the two neighbouring walls. On the second floor, similar, smaller frames provide zenithal light to the level below, and provide lateral views to the second floor.

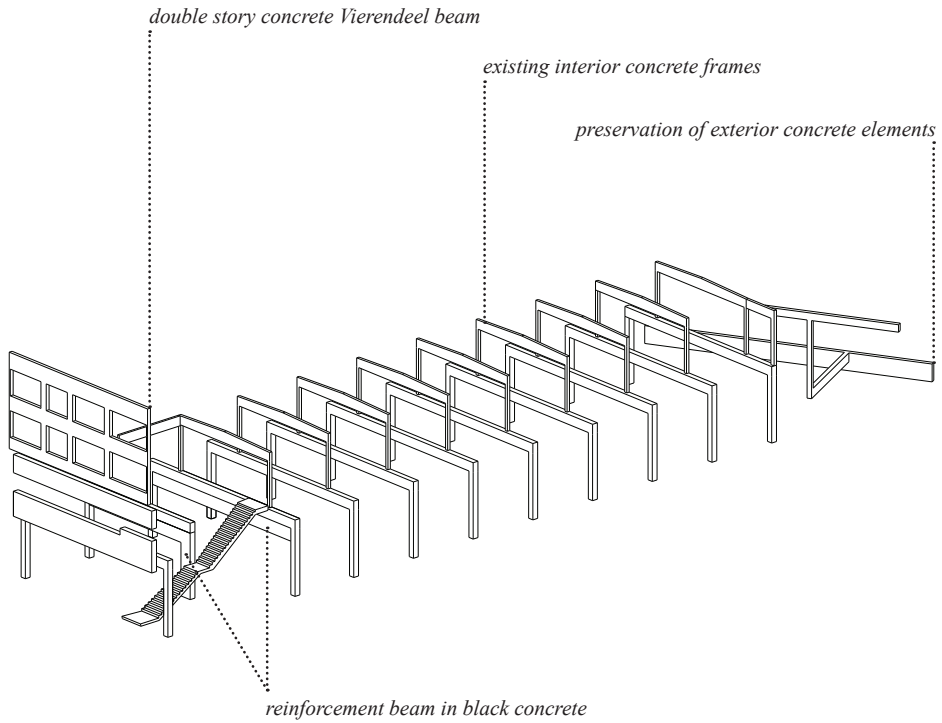
This principle of large beams freeing space completely, becomes the red line of the structural approach. It is a very simple, flexible principles, that doesn't give indications on the shape, design, or materiality of the structural elements. In consequence, it gives freedom in the solving of local issues and situations.

A variation of strategies was developped around this principle.

First, the structure was cleaned in its original situation. The exterior elements, some of which were discovered during the works, were painted black in order to avoid expensive concrete restoration works.

Second, two beam were modified by the integration of a new staircase. One beam was cut and the scheme of loads was modified. These beams are supported by new elements in black concrete.

Third, the structure is extended with a variety of structural solutions, like simple steel beams for the façade cladding and the realization of a two levels Vierdendeel beam on the front elevation.

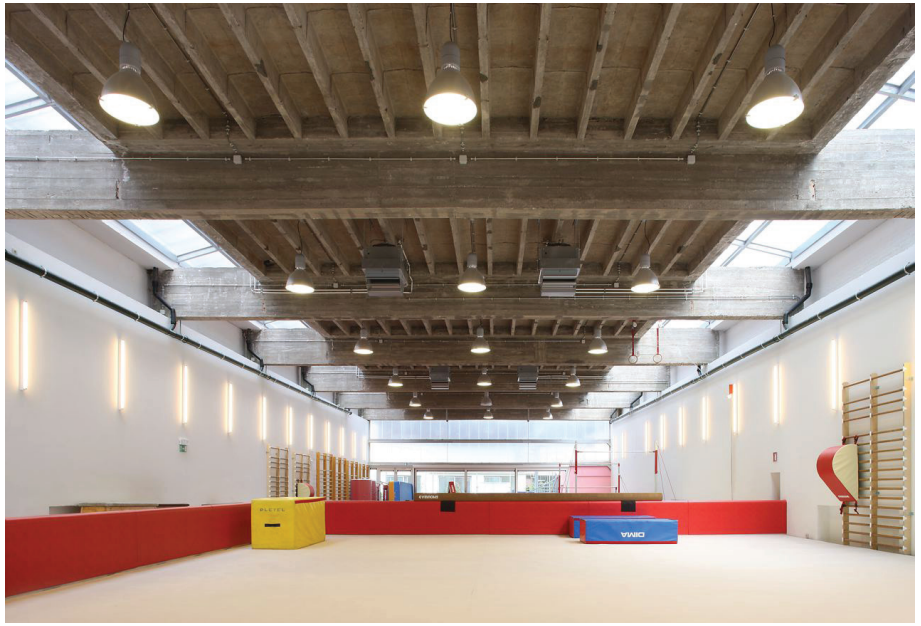


Similarly to Vertigo, Metal is clad with polycarbonate panels.

In this case, the polycarbonate offers the possibility to be used as a simple cladding of facade walls and simultaneously for the translucent, insulated, and cheap finishing of window openings. Thanks to this double capacity, the polycarbonate skin covers the building entirely, with the exception of the existing appartement on the second floor, and the first floor, which is glazed.

Metal, AgwA, 2009
© M.-F. Plissart

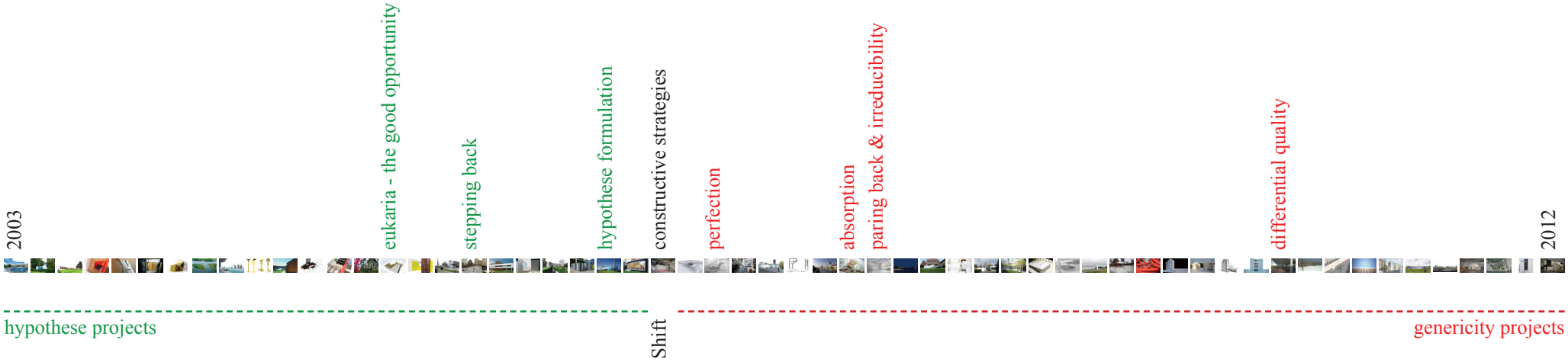
B11 (a)
Metal - Materiality



Metal, AgwA, 2009
© F. Dujardin

Metal, AgwA, 2009
© M.-F. Plissart

B11 (b)
Metal - Materiality



In November 2010, during my third GRC in Ghent, I proposed that the Metal project meant a shift in the practice, from “hypothese” project towards “generic” projects.

Hypothese project focus on the creative input in projects. How to formulate an hypothese, to define what the intrinsic quality, what the metaphorical specificity of the project will be. This can be based on analysis or on a subjective feeling. According to Francis Ponge in “Pour un Malherbe” p57 : “Il s’agit de fonder en raisons (résons), quasi scientifiquement, quoi ? L’audace de nos intuitions. Nos intuitions les plus arbitraires.” (We have to found in reasons (resounds), almost scientifically, what? The audacy of our intuitions. Our most arbitrary intuitions).

Then, after Metal, the projects focus more on ways of stepping back, of escaping arbitrariness. Or better, of controlling the points of application of arbitrariness. It is about processes of perfecting (seeking wholeness, completeness), and of reabsorption of former projects, it is about processes of choicemaking, etc.

C : PHILIPPEVILLE - SPATIAL GENERICITY

The genericity of a spatial development depends on its independence vis-à-vis the type, and possibly of the number of its subspaces, consequently increasing the level of its abstraction, and thus its capacity to absorb diversity and unexpectedness while establishing a powerful identity.

Spaces can dissolve in the geometricality. They also can simply be juxtaposed, maintaining their original autonomy. These two compatible strategies can be combined to different degrees.

In a way, as I unerstand it, Spatial Genericity lies in a concurrence of arithmetics (distinction, quantification) and geometry (relative position of elements in the whole) organized by common rules.

lowest order perfect square

C1
Spatial Genericity

The opposite series of plans are the complete planologic research of the project. Colors and diposition are unchanged.

1. Formal fibrillation
The temptation of the laughing gas. The program is assembled in various starlike shapes and tridents. Form is organizing space through a process of programmatic dissection. No contact, no problem. But this is always unfair. How do you orient such spaces ? What happens with the spaces inbetween ? In this process, there will always be privileged and penalized spaces.

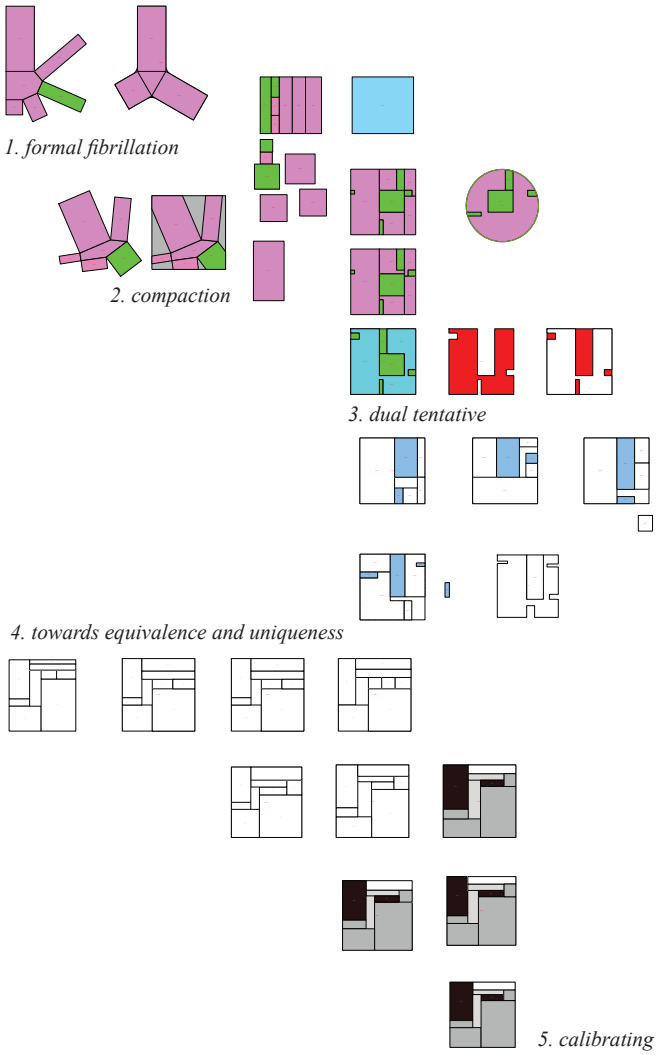
2. Compaction
The starlike experiments evolved into more compact footprints, and finally into a square. Then the stars and forms dissolved completely in a simple, stroked square.

3. Dual tentative
Form is evacuated. Now we have to find other impulses to organize the plan. This happened through a kahnian binar differentiation of the program. Servant spaces define the served ones in an increasingly strict way, culminating in the red “positive/ negative” schemes. But now, the program gets unarmed : servant spaces lose their full potential and served spaces become “assisted spaces”.

4. towards equivalence and uniqueness
Progressively, as the binar differentiation is pushed aside, all spaces acquire the same level of quality. Progressively, all redundancy is also removed. Significantly, colors disappeared from the the sketches together with the programmatic differentiation. Mathematicians define a figure as perfect if it is composed entirely of squares of different sides. Is it a coincidence ? Here also, we considered the plan perfect only when each space was self-sufficient, necessary and unique.

5. Calibrating
In a last stage, the space generating rules being defined, the plan is calibrated to fit perfectly the program. Spatial Genericity is not a petrifying principle, it adapts freely to the number and the size of spaces.

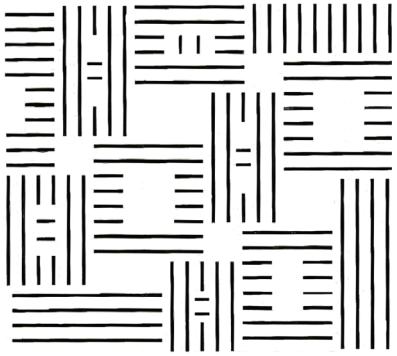
After this process, the plan was converted into a “buildable” project (cf structure analyse, I3)



Philippeville
plan research plate, © AgwA 2008

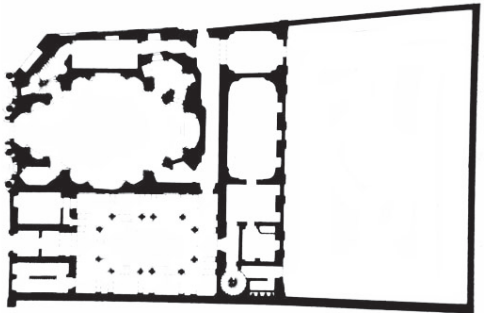
0 20m 40m

C2
Spatial Genericicty - Discovery process



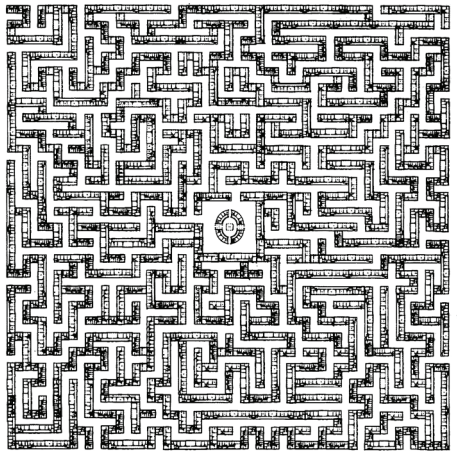
0 10 20 m

Peter Zumthor
Swiss Pavillion Hannover
2002

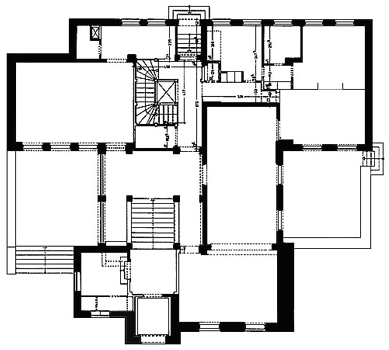


0 10 20 m

Borromini
San Andrea alle Quattro Fontane
1646



Jean-François Thérèse Prieur
Cité Labyrinthe
± 1890



0 3 6 m

Ludwig Wittgenstein, Paul Engelmann
Wittgenstein House
1928

Types of genericity

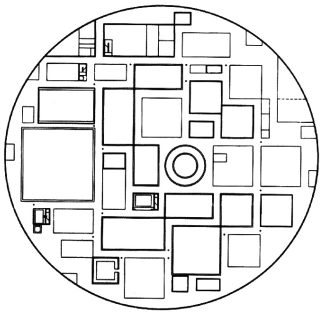
The Swiss Pavilion at the universal exhibition in Hannover consists exclusively of stacked wood. This constructive principle dictates the geometrical rules that create and differentiate spaces.

In San Andrea Alle Quattro Fontane, the exterior skin doesn't reveal the interior composition. Each space is self centered, autonomous. There is no influence or contamination of spaces. However, each space seems to be placed in the "right" position. There is no conflict, and no left-over space.

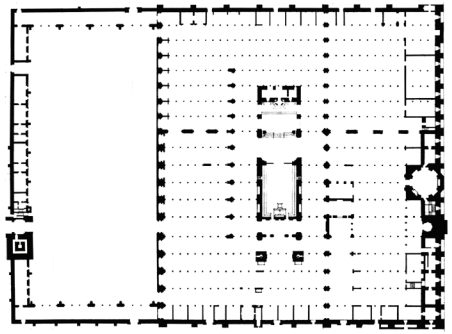
The Labyrinth City of JFT Prieur displaces architectural debate outside the constructed reality, as JLE Boullée did before him. This search for patterns almost reduces the internal spatiality of the houses to insignificance in favor of the whole. Space dissolves in geometricality.

The Wittgenstein house in Wien is similar to San Andre in this sense that it consists of a juxtaposition of almost independent spaces. However, in this case, the spaces do not fit into a unique, coherent container. Its outside geometry acknowledges the nature of the plan.

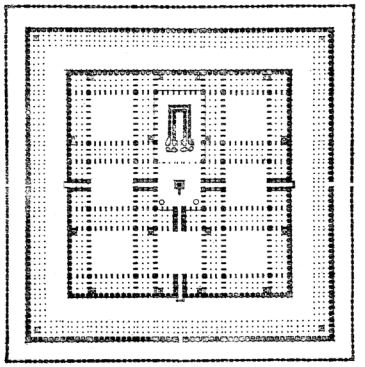
Ann Veronica Janssens
Cocktail Sculpture



Kanazawa Century Museum
Sanaa, 2004



Cordoba
Great Mosque



Salomon's temple
reconstitution

The Cocktail sculpture is a threedimensional composition of tranparent spaces, materialized by fluids of varying density and separated by glass sheets. The transparency of all materials reduces the work to a pure spatial composition. It is a kind of “threedimensional perfect cube”.

The Kanazawa Century Museum is a set of neutral, independent spaces. They fit together through a simple, gridded disposition, and form a unity thanks to the circular shape of the envelope. The spaces can be interchanged, the plan is not stable. The plan is only one possibility of a diagram in perpetual vibration.

The plan of the Mosque of Cordova is layered addition of grids, dotted lines, and dotted boxes of different nature. Simultaneously, all these systems are dimensioned to fit each other. It is a “seamless superposition”, that qualifies spaces inside one geomtrical universe.

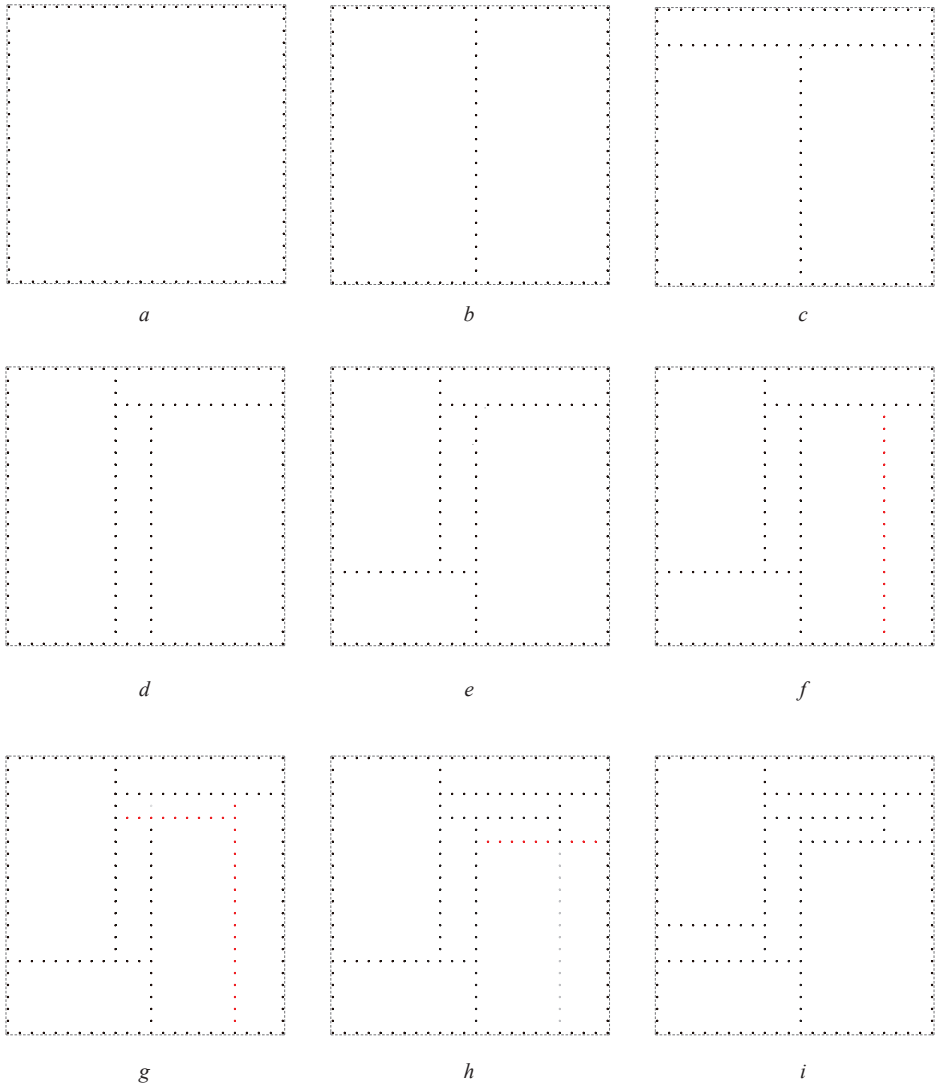
The reconstitution of Salomons temple starts from a cartesian orientation of space. It reflects itself a virtually infinite amount of times through multiple symmetry in both directions. Each space is multiplied a variable amount of times, and spatiality dissolves in geometry.

The school restaurant is a limited set of rectangles forming a square, in which there is (almost) no rectangular subset. This means that there is no possibility to divide the building in two “autonomous” rectangular blocks. The restaurant is the smallest, the first grouping of spaces that aquire the status of completeness of a rectangle.

This rule was not formulated clearly and upstream of the project. The plan experiments converged towards a plan, that appears to follow very clear rules. However, at the time of the project, these rules were not explicit. I only remember of a comment from a collaborator saying “this part is wrong, we never divide a space in two : the separating walls are always interrupted.”

Indeed, the analyis of the plan shows that new spatial divisions result of a two-steps process : interrupt a line (g or h, in grey), then divide perpendicularly to the interrupted line. It is a complexification of the tradition “windmill” pattern (e).

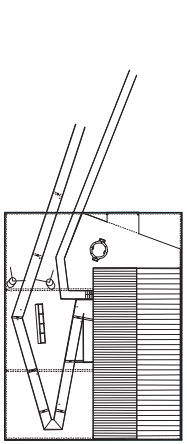
In addition, all rectangles tend to be different in size and proportions.



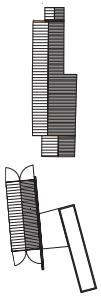
Philippeville
decomposition of space generative rule, © AgwA 2010

0 10m 20m

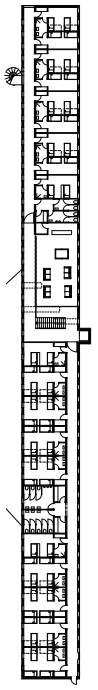
C4
Spatial Genericity - Praxeme analyse



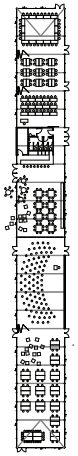
Vertigo
2007



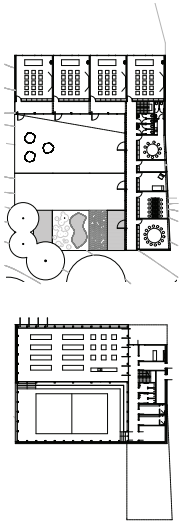
Jassogne
2005



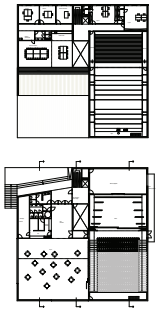
Neufchâteau
2009



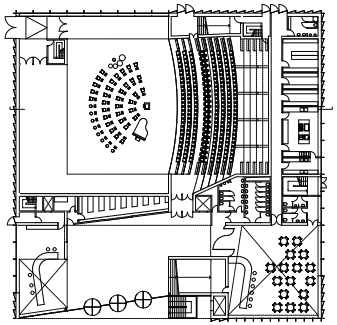
Sint Lucas
2010



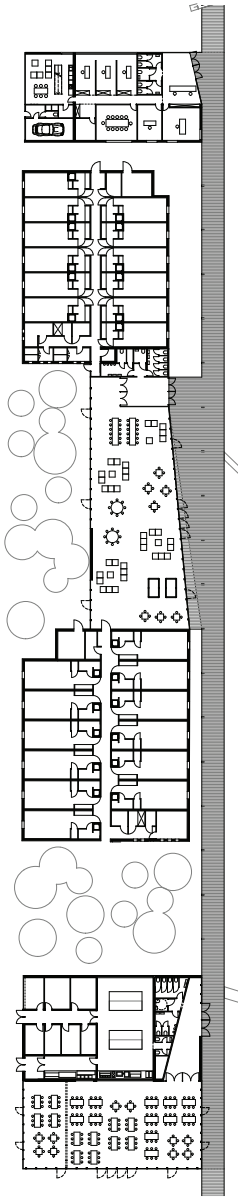
Riva Bella
2009



Stavelot
2009



Deinze (level 0)
2012



Péronnes
2010

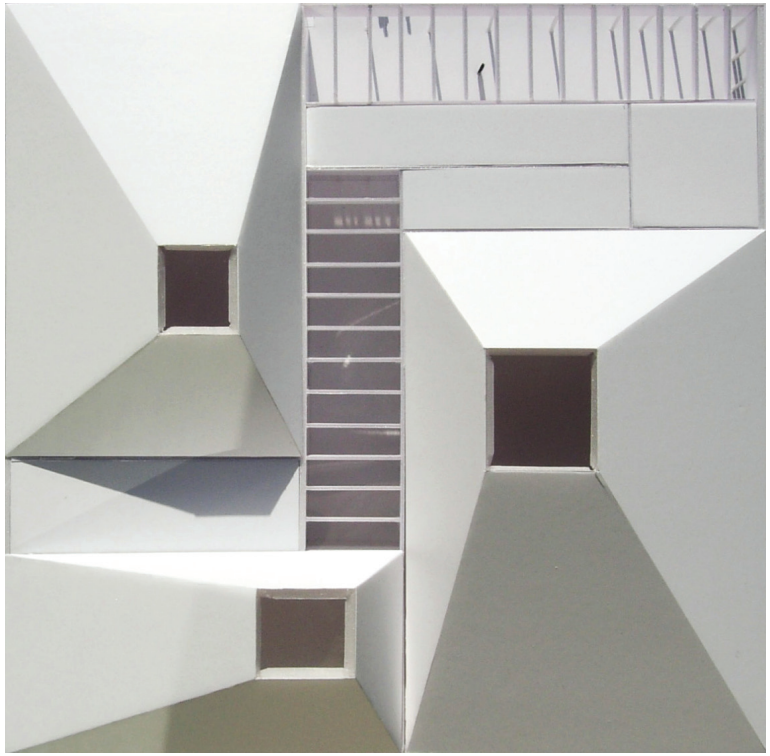
0 10m 20m

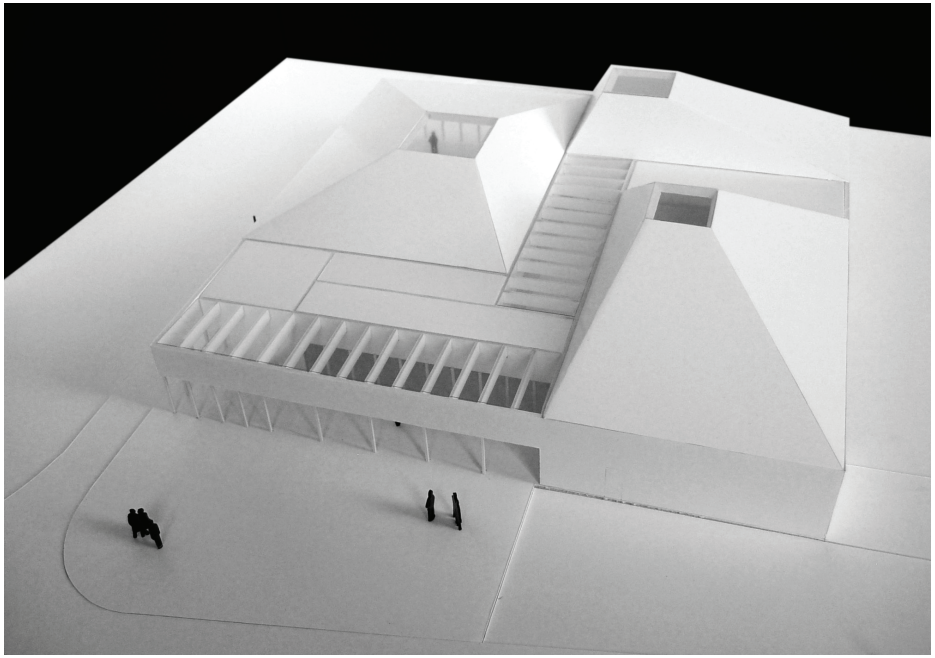
Coexistence
In Vertigo and Jassogne, the parts are autonomous in the whole. This means that each fragment needs to have some level of autonomy, that can be expressed through its shape or through its behavior (the bouncing queues in Vertigo)

Segmentation
Linear projects like Neufchâteau and Sint Lucas are segmented and propose a sequenced spatiality. Linearity allows simple structural solutions and a high degree of flexibility. Diversity can appear through an irregular segmentation.

Unitary Subdivision
Many projects subdivise space in the plane (Riva Bella, Stavelot, Philippeville) or in space (Deinze). Each project is subject to its own common geometric rules. Cartesian systems are easy to support such subdivisions, but probably not necessary.

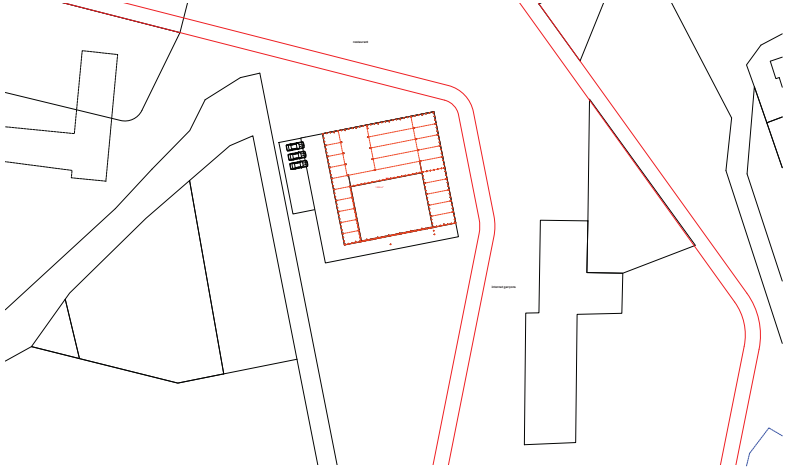
Hybrid systems
Péronnes is an example of an hybrid plan, parts of it being linear, or unitary subdivision, some parts being coexistent.





Philippeville
model (2008) - foam cardboard
scale 1/100

C6
Philippeville - Model

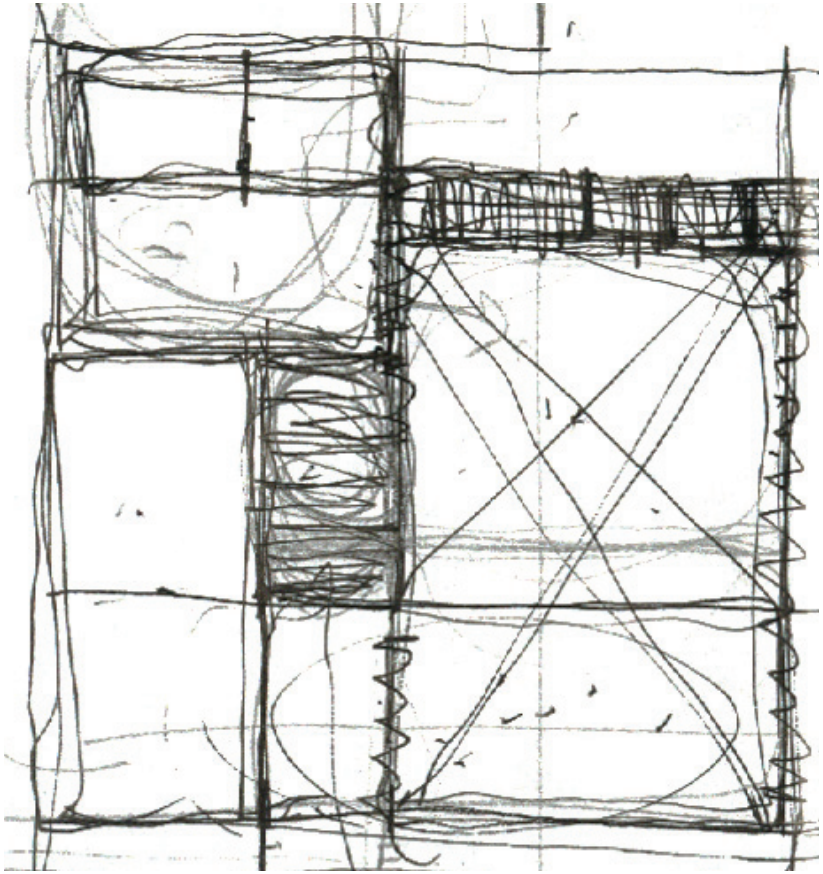


Philippeville
work document
The plan of BPS22 is pasted, mirrored, rotated into Philippeville's site

A few week before the start of the Philippeville competition, we entered another competition, for a contemporary arts platform in Charleroi. The client's main wish was to obtain "porosity" in the project. We added the idea of isotropy to it.

Philippeville has seemingly nothing to do with this project. It is a school restaurant in an open site, not the refurbishment of XIXth century sheds into an arts platform. However, the scale matched more or less, and most imporant, the idea of isotropy and porosity fitted perfectly this new project. The school restaurant is open to all, avoiding any hierarchisation of the campus.

Before the actual research began, next to other possibilities, the plan of BPS 22 was simply pasted on Philippeville's site. We had the impression this could work, and so the work began.



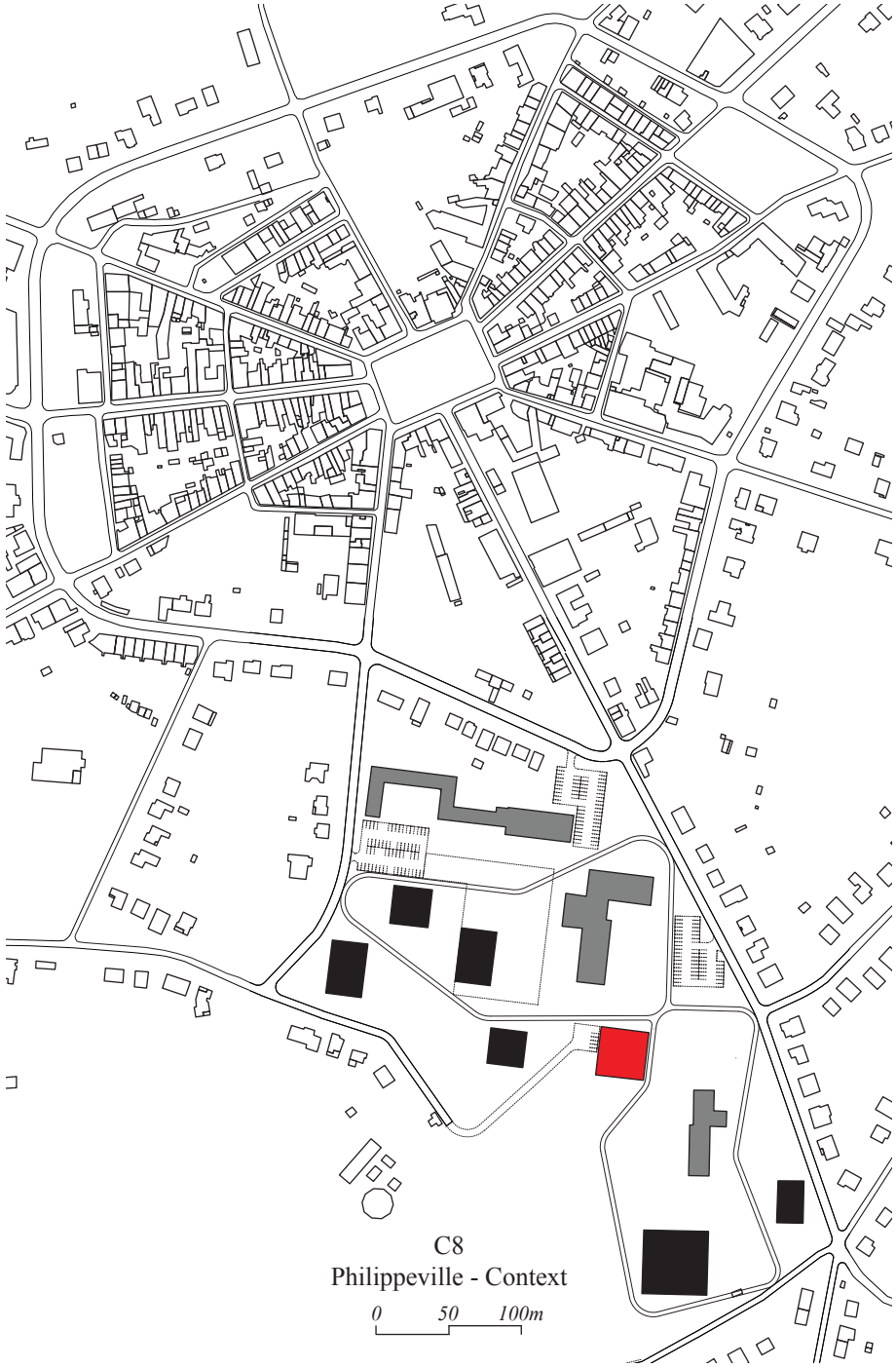
BPS 22
sketch (plan research)

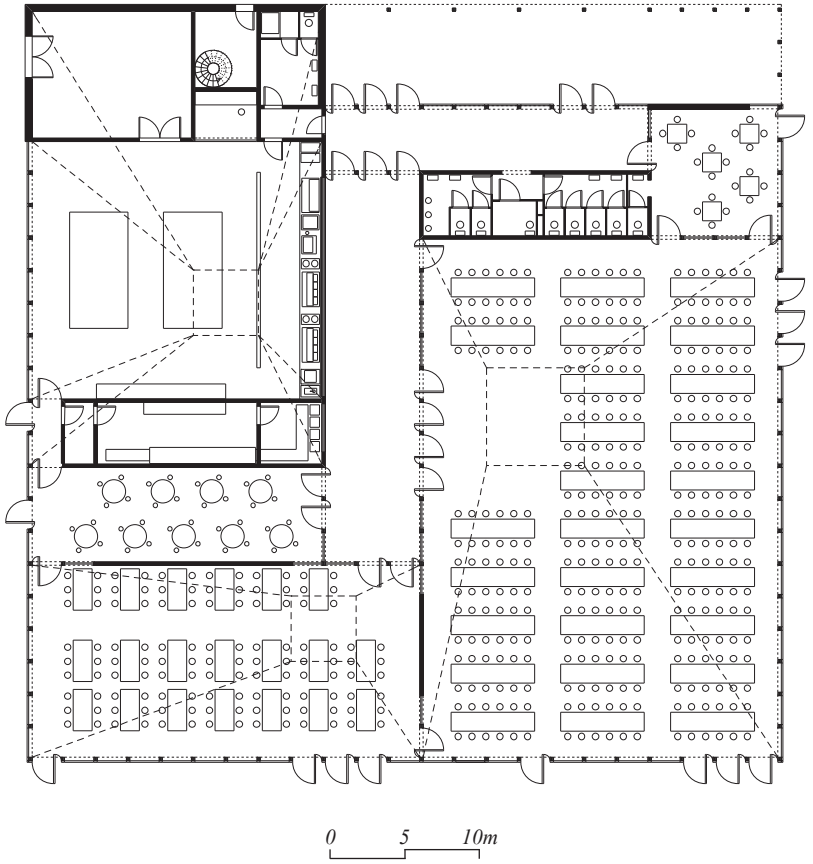
C7
Philippeville - Concept

Philippeville is a small city center, with a pentagonal ringroad, reminiscent of its military history. Outside this center, the urban fabric is loose and unarticulated.

In order to redevelop the school campus, we decided to respect its typology of free standing buildings. The campus is situated outside the city walls, and has great contact with the natural landscape surrounding the city. However, in order the make it part of the city, we introduced a pedestrian 8-shaped “ringroad”, that links all the existing and future buildings of the school (in grey and black), echoing the footprint of the ancient city walls.

the school restaurant is situated at the crossroads of this “loop”, forming the new heart of the school’s life. We could argue that the loop has some independence vis-a-vis the context : its formal principle is derived from the pentagonal ringroad, but not from the immediate surroundings. However, it is shaped in order to fit the context with precision (tangentially to the neighbouring streets).
The restaurant itself is an abstract square footprint.





C9
Philippeville - Space (plans)

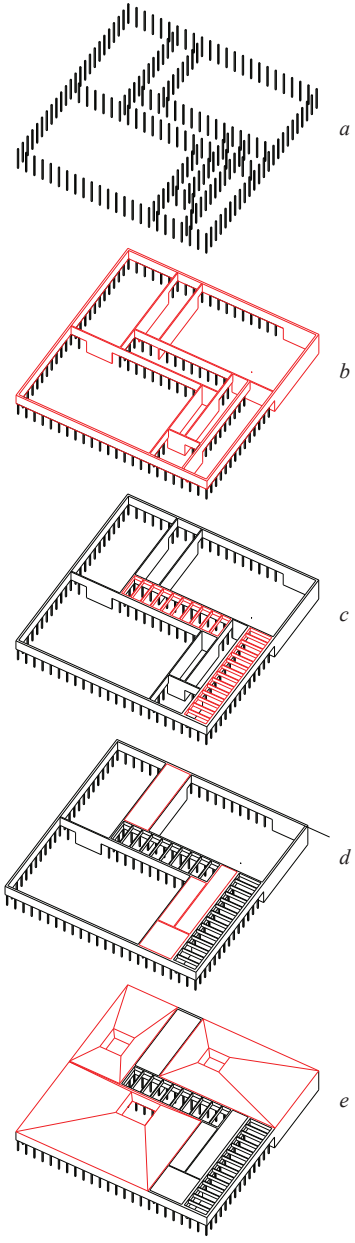
a.
The spatial scheme is materialized as an homogeneous set of wooden columns (wood, ±20*20cm) with a regular interdistance (about 140cm). The conceptual porosity of the building matches completely the structural principle. There is no dichotomy of structure and architecture.

b.
The space between columns is filled according to necessity. Windows have tolerable sizes and some walls need to be closed for functional purposes. Shear walls appear too (possibly to be realized through bracing)

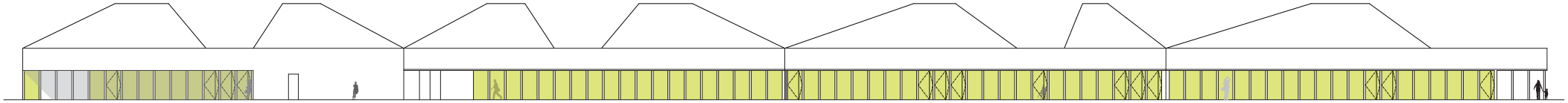
c.
The roofs are indepentent. Different wooden structural solutions are applied. Simple wooden beam for skylight where light is needed (central space in front of the bar) or where no roof is needed (outdoor eave)

d. simple flat roofs

e.
Autostable, non symetric, truncated pyramidal roofs offer more spatiality to larger rooms and the possibility of additional daylight where needed.



C10
Philippeville - Structure



The materiality of the exterior skin has always been a difficult issue to us. We often felt that choosing a material was somehow abritray. Materials and textures very directly refer to other architectures we do not precisely want to refer to.

For Philippeville, we applied a white, homogeneous polyurethane coating, that can be projected directly on the insulation panels. This way, the waterproofing of the project is the finishing at the same time. It is clearly referring to minimal architecture, but in fact, it is simply an absence of choice for a texture, and first of all, it is strictly speaking a technological solution adequate for sloping roofs, flat roofs and the vertical facade as well.

Now, we are definitely aware that at a competition stage, our proposals for materialities are destined to evolve, sometimes radically, over the process of the project.

0 6 12m

Philippeville
developed elevation and perspective

C11
Philppeville - Materiality

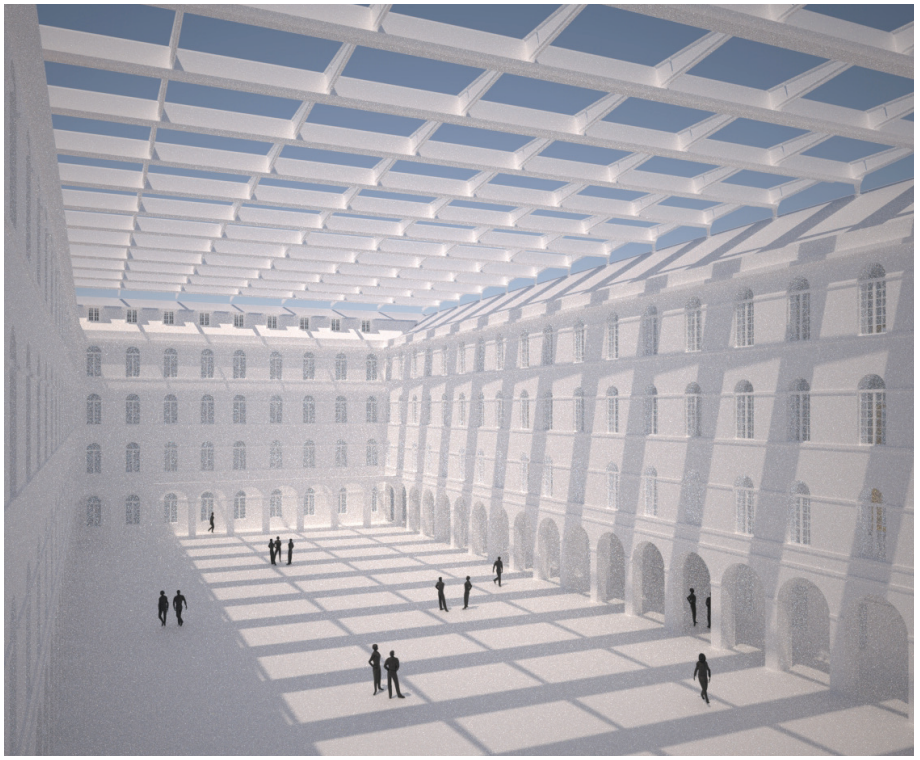
hypothese projects

genericity projects

April 2011

Looking back at the operational dictionary proposed in November 2010 (heterogeneity model) and at the shift of the Metal project, I started to reorganize the “operational concepts” in families.

I wondered if the hypothese/genericity model was one of mutual exclusion, or if a dual model could enrich the understanding of the projects. Project are simulatenously part of the specific and of the generic families to different degrees. Perhaps, the more generic a project is, the less specific it becomes.



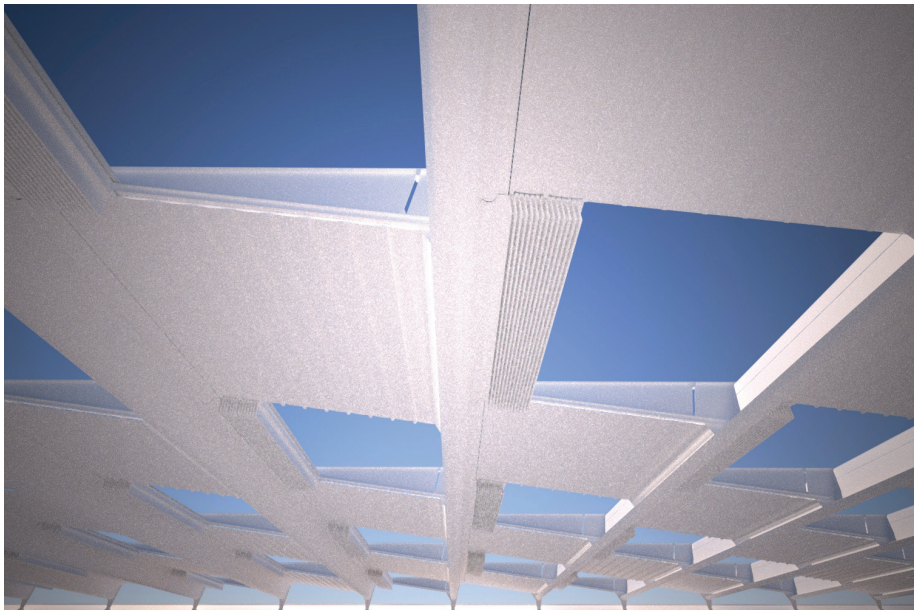
D : CARRE DES ARTS - STRUCTURE AND ARCHITECTURE : COINCIDENCE

The shape of structure addresses the physical constraints. It can also integrate other dimensions of the project, like spatiality, rainwater, integration of technological or constructive elements. Instead of cladding the structure with decorative skins, let the structure absorb the architecture, and the architecture match its structure as much as possible. It is a mutual search for coincidence.
This questions the tradtionnal Semper vs Viollet-Le-Duc dual field.

Semper : “Hanging carpets remained the true walls; they were the visible boundaries of a room. The often solid walls behind them were necessary for reasons that had nothing to do with the creation of space; they were needed for protection, for supporting a load, for their permanence.”
(from “The four elements of architecture and other writings”, Gottfried Semper,1851)

Viollet-le-Duc : “Indeed, every architecture proceeds from the structure, and the first condition it has to fulfill, is to fit its form to this structure.”
(from Discourses on Architecture, Viollet-le-Duc, 1858-1872)

We do not attempt to beslave structure to architecture or vice-versa. Instead, there is a negociation between architectural and structural design, aiming at the blooming of each. The issue is to define the rules and to manage the space for this negociation.



D1
Praxeme : Structure and Architecture : Coincidence

a.
For the covering of the courtyard of the Carré des Arts in Mons, we proposed three projects at the competition stage. The three intentions at the competition stage were based mainly on their materiality: membrane, timber/steel, inflated structure. Their architectural consequence towards the existing building were also evoked: anchored in the building, independent structure modifying space, totally disappearing roof.

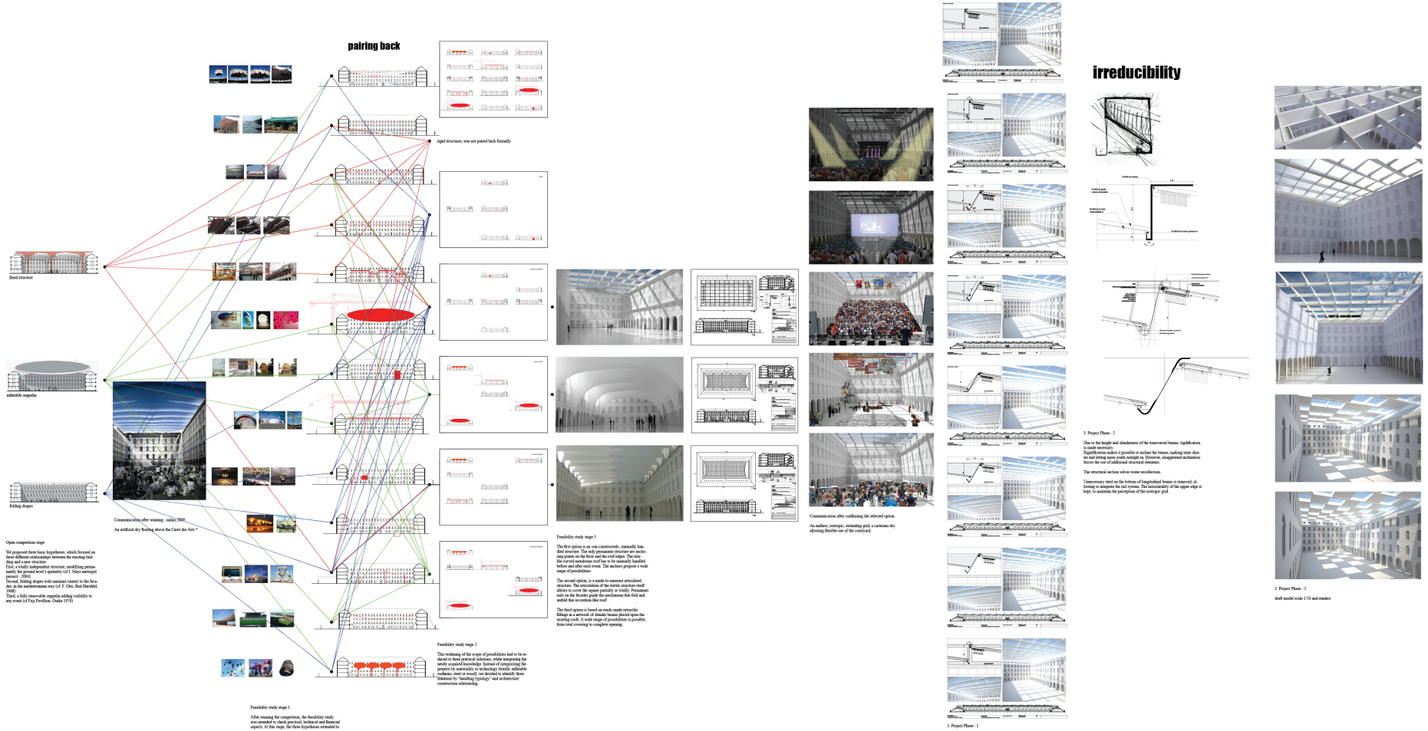
b.
During the first stage of the design process, these three intentions evolved into a large collection of possible projects. It was a process of pragmatization of ideas : the zeppelin evolved into balloons suspended by cranes or into self stable, inflated mushroom shaped structures. Each possibility was also referenced carefully.
Then, we did not choose “the best” solutions. Instead, we grouped them into overlapping families. First, an attempt was made according to materiality (tensed membranes, inflated structures, hard structures). As this prooved not to be very helpful, we organized them by what we called “use value”. First, the flexibility potential of a manually handled roof, second, the customized mechanization of an articulated structure, and third, the integration of mass produced retractable elements in a fixed framework of beams. This shift has proven useful because it addressed not only the material aspects of the project, but also the consequences on the use of the structure, from manual handling to complete automation.

“The three solutions for the covering of the Carré des Arts differ through their materiality and useability, but they share a common interest for the use of the structure as solution for all dimensions of the project. This is quite obvious for the membranes. The use of double curvatures for the rigidity of the roof define directly its shape and spatiality, but also condition and solve the evacuation of rainwater and the ventilation. In the case of the third solution, we face a hybrid system, a classical differntiation of skin an structure. However, the structure is not merely a servant support of a skin: they complement and define each other.”
(from “Four study cases on skins and structures”, Harold Fallon, ICSA, 2010)

c.
In doing so, the three intentions mutated into three feasible projects.

d. & e.
After the choice for a gridded structure allowing full automation, this process of expanding possibilities and paring them back happened again adressing more local issues of shape. Finally a similar exploration happened regarding the dimension and the number of the cells in the mesh.

It is striking that this linear process of expanding and reducing the number of solutions addresses a limited number of variables at a time, leaving other variables “unquestioned”. as they will be explored in later phases.

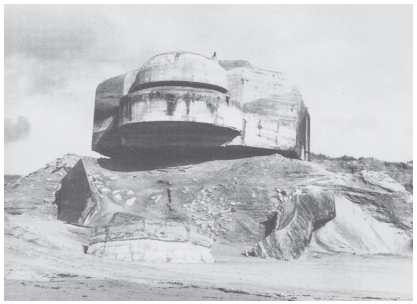


a *b* *c* *d* *e*

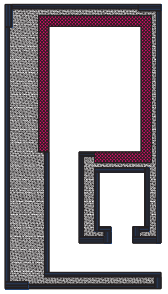
Carré de Arts analysis of the design process
Harold Fallon, GRC nov 2010, Ghent

D2
Structure and Architecture : Coincidence - Discovery process

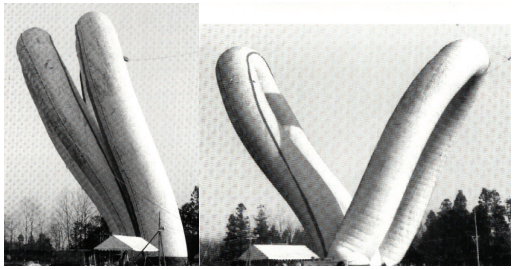
Remy Zaugg studio
Herzog & De Meuron, 1996



Bunker
"bunker Archéologie", P. Virilio, 1975



Vals Therme,
Peter Zumthor, 1996
Structural analyse B. Vandenbulcke



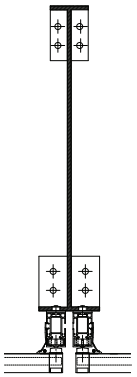
Fuji pavilion in Osaka
Yutaka Murata, 1970

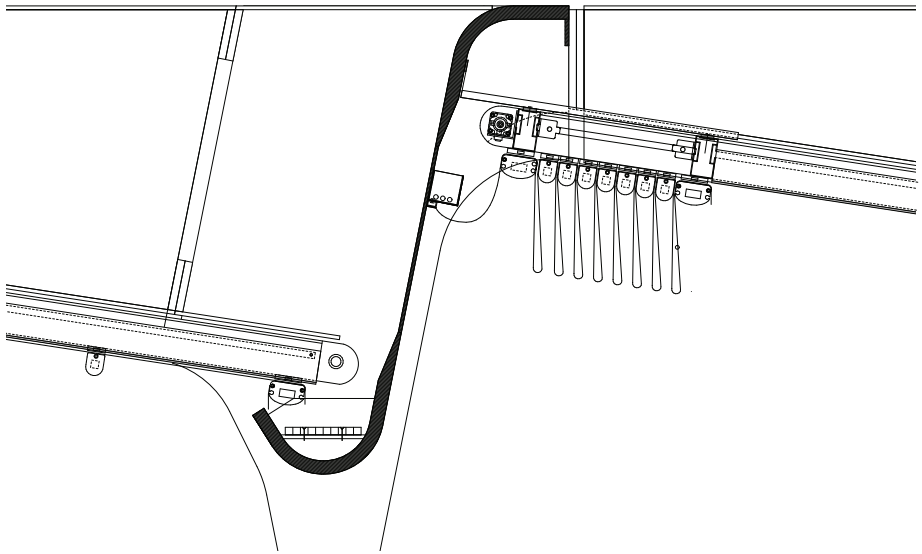
Though it doesn't mean that its structure meets it's architecture, Remy Zaugg's studio by Herzog & De Meuron is a striking example of a building's shape addressing various functions simultaneously. Rainwater is drained from the almost flat roof along the concrete wall, avoiding the use of rainwaterpipes.

Bunkers are strictly functional buildings : their shape is a direct consequence of the needed robustness, the internal functionality, their position in the context. There is no formal gratuity.

Many projects of Peter Zumthor are the architectural consequence of a constructive "seed" : a small constructive detail solving a large set of needs, and proliferating to the scale of the building, as would happen with a termite's nest. In the case of the Vals Therme, a unique combination of concrete and stone, used as lost formwork, resolve the presence of water and technical equipment, the structural stability, and the geometry of the building.

The Fuji Pavilion in Osaka was a fascinating example of an unexpected structural solution giving birth to a complex form, that is completely identified with the architecture. (There is nothing more than the inflated tubes pressing each other).





Carré des Arts
constructive details, © AgwA - Ney & partners 2010

0 20 40cm

The grid of the Carré des arts consists of transversal S-shaped beams linked by triangular stiffeners.

On the one hand, the structure is shaped to address various constraints simultaneously.
Second, there is a perfect match between the structural items and the secondary constructive elements, like the roof system.

Next to structural constraints, the inclined S-shaped beams integrate the drainage of rainwater and the protection of the “garage” and the motor of the membrane roofs. The inclination counterbalances the influence of the triangular elements, and produce a lighter visual impression as the shadows of the sun are minimized.

The I-shaped triangular stiffeners are simply bolted to the main structure : there is no attempt to integrate or hide the the junction between these elements. A vertical open joint appears. The inclination of the triangle corresponds to the slope of the membrane roofs. The inferor wing of the I corresponds to the rails of the roofing system.

On the two ends, the structural system is adapted to match the local specificities.

Structures can serve different purposes.

The sports hall along the l'Eau d'Heure lake is designed as an origami of insulated timber plates covered with projected polyurethane waterproofing. This creates a warm wooden interior, enhances greatly the acoustics and the shape also solves the drainage of rainwater. Variations in the folding are used to create the entrance and other openings.

The structure of the sailing school in Péronnes consists of prefabricated concrete columns. The timber structure consists of square frames with diagonal beams. The diagonal disposition causes the variability of inertia of the beams and of the frame. This in return lets natural daylight in and produces a visual waving of the architecture.

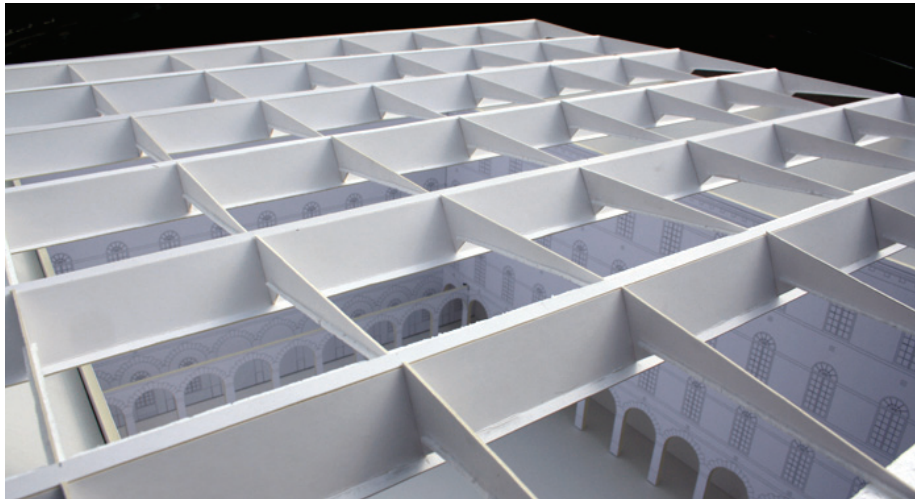
In Jassogne, it is a bit different. Three different structures correspond to three juxtaposed architectural items. The pool is a simple concrete rectangle. A stone wall has is a structural element without structural value : it is a screen in the landscape. Last, a dense semi-prefabricated timber structure forms shelves in the barn.

Perhaps we are looking for original or unexpected solutions, but to use them for pragmatic purpose. It is a refusal of gratuity (or at least, a too evident one : it is always gratuitous in some way).

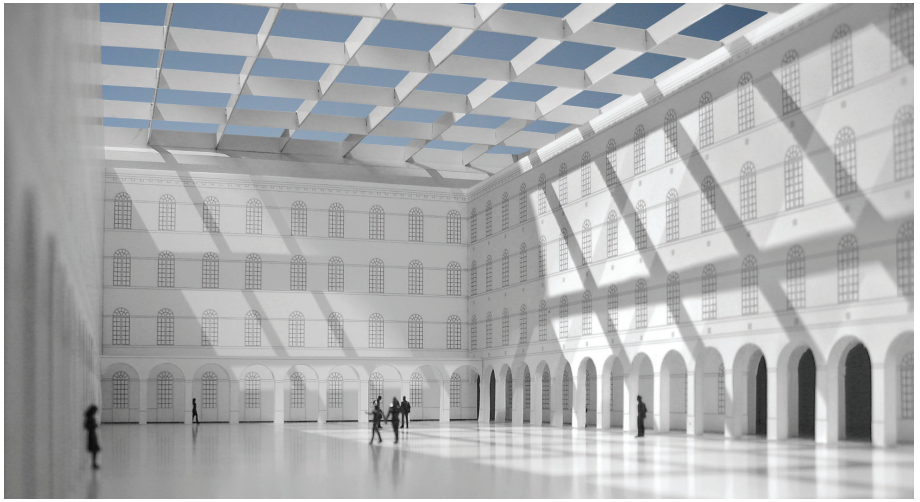
Eau d'Heure, Sports Hall, 2009
AgwA + Weinand

Péronnes, Sailing Center, 2009
AgwA + Artgineering

Jassogne, swimming pool and barn, 2005



Carré des Arts
model (2011) - foam cardboard
scale 1/100



Carré des Arts
model (2009) - foam cardboard
scale 1/200

D6
Carré des Arts - Model

It is a new, gridded sky.

As it is placed on the rooftops, this is almost invisible from the courtyard. The supports are as tiny as possible. The roof floats at some 22 meter above the ground. It is so high, so broad, that it seems infinite. It becomes independent from the ancient military building.

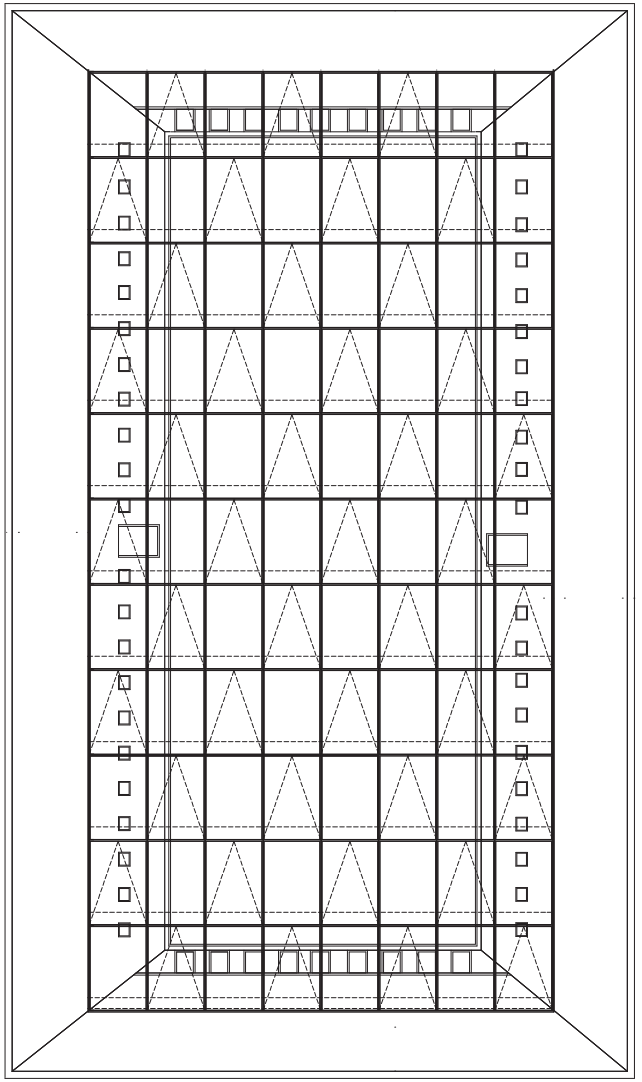
The metaphor of the gridded sky is a helpful one. As we knew that we wanted it to be a grid, and nothing more than a grid, we had to integrate everything in it. So we became aware that we were distorting the structure to absorb architectural constraints.

The Carré des Arts is a huge rectangle in the middle of traditional historic centralized city pattern. The building itself is only partly visible from public space, as it is englobed in other constructions.

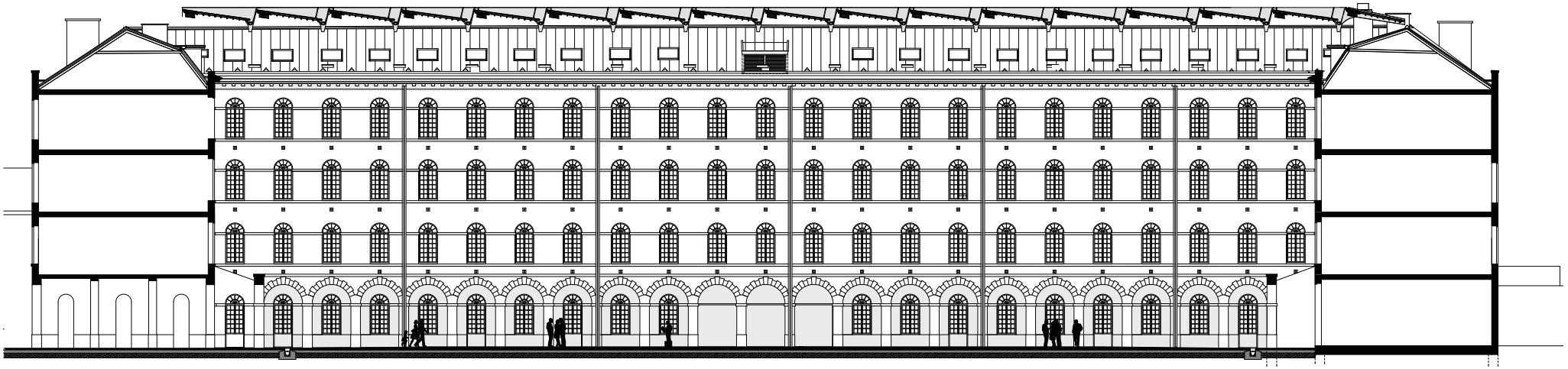
In fact, there is only one point where one can feel the greatness and the rigor of this military building : it is the courtyard. It is a rectangular city-room.

D8
Carré des Arts - Context

0 100 200m



D9
Carré des Arts - Space (plan)



D10
Carré des Arts - Structure

A prototype of the structure and of the retractable roof was realized.

The visual impact of the grid changes completely when the roofs are closed.
The grid disappears and becomes a succession of waves. the roof themselves are stiffened by small aluminium elements.

We like almost infinite repetition of elements : the whole acquires an autonomy that is more than each element alone. In the Carré des Arts, the structural pattern is superposed to the secondary patterns of the roofs. They dissolve in each other.

Carré des Arts - mock-up (2012)

2003

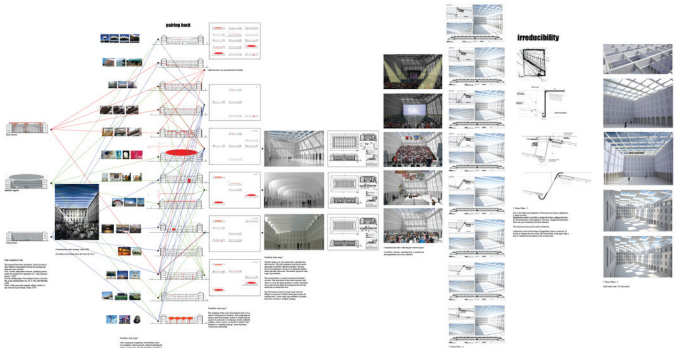
2012

November 2011

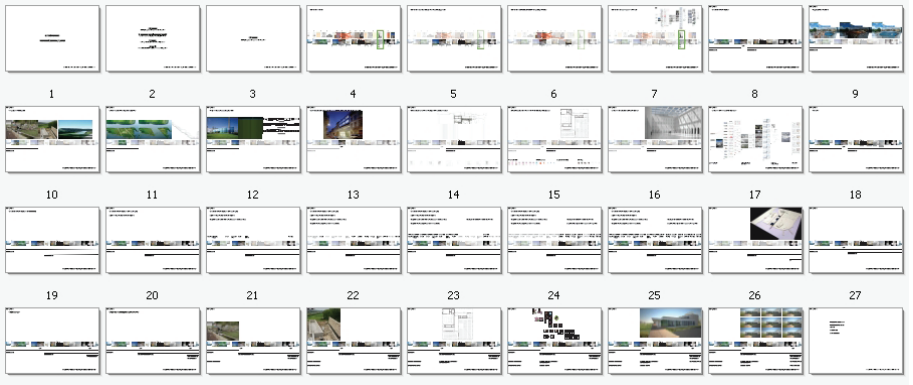
The design process of the Carré des Arts (cf. D2 Structure and Architecture : Coincidence - Discovery process) indicated seriality as a fundamental way of designing at the office. Nothing is given at once, things needs to be re-worked and reworked in order to converge to a point at which “it fits”, meaning that we grasped what the project was about, that the red line has been made conscious.

Well, working on the timelines of projects in order to discover how the practice is structured works the same way. I work and rework this timeline, and the perception of it changes and refines each time.

However, this doesn’t mean that previous ways of seeing were false, but rather that thnigs can be understood differently, apporting other frameworks, and offering new possibilities.



Carré des Arts, analysis of the design process
Harold Fallon, GRC nov 2010, Ghent



the analysis of timelines also happens in the form of a series
Harold Fallon, GRC nov 2011, Ghent

E : PERONNES - LANGUAGE THROUGH MATERIALITY

Materiality adresses visuality and tactility : it is unavoidably charged with sense, references and connotations. Make it white, it will be stamped as minimalist. Make it in wood, it will be interpreted as regionalist or ecologist. Apply some exotic textures, and maybe it will look contemporary. Glass and steel? High tech.

In order to bypass the impossible equation of not being something else, materiality is also the opportunity of a language to be developed. Materials impose constructive rules, that can evolve into compositional rules.

This is about choice, detailing, dimensioning, lay-out drawings.

E1.
Language Through Materiality

a. competition stage : materials are not an issue yet

As is it an issue of “imaging the project”, we applied some neutral textures to the buildings. The administrative buildings are clad with black corrugated sheets, the sports hall with white ones, and the sailing school with translucent panels. Though we defended these options towards the client, I think we knew already that it was not a real choice, but rather a temporary texture.

b. Divergence : switching materials

In a first stage, we chose one of the buildings (the sailing school), whose volumetry was more or less stable, and photoshopped collections of textures. We were unstatisfied, as each material was loaded with connotations, and immediately referred to an architectural style. We wanted to avoid to be categorized into something partial, to be assimiled to someone else’s style. A last tentative move was to propose the cladding with concrete blocks. As the building was intended in a timber structure, this was non-sense at first sight, but looked promising also.

c. References

The concrete blocks refer to multiple architectures. Through this rich, even complex referential network, the issue of one partial, evident reference gives way to the potential of a material “loaded with history”, that will be interpreted differently (it resides in the eye of the beholder). Also, it is an adequate material: many collective buildings in the last 40 years in the region have been built with this material. It is embedded in the local history and landscape. The choice was made.

d. Concrete blocks : researching the grammar

Then, we focused on one render of the competition stage (the administrative building) and attempted to apply the concrete blocks in a constructively adequate way. How can we assemble it, how can we transcend its natural inclination, how do we complement it with concrete elements, what is its modulation, what does it or doensn’t it afford, how does it combine with other materials? Eventually, we changed the volumetry of the building to fit the nature of the material, and defined rules for openings, lintels, corners.

e. Application to other buildings

The last stage was to apply the discovered “language” to other buildings. Stangely enough, in the end, the sailing school, which was the cause of the choice for concrete blocks, was finally covered mainly with an open aluminium cladding, but that is another story.

competition stage
a neutral claddings

variety of claddings
textures lover

all wood cladding
back to the roots

steel maze and vegetation
high tech ecologist

white volumes under the sun
minimalist

colored strokes
hype designer

what about concrete blocks ?

existing buildings at Peronnes:
definitely not exotic

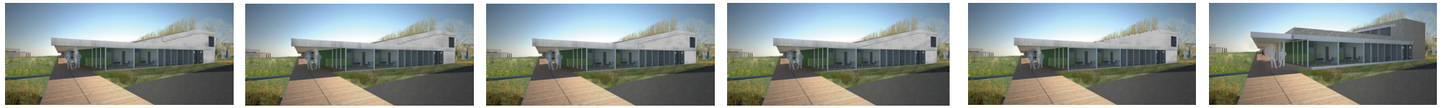
Atelier Santos
rough precision

Juliaan Lampens
matter / time

Herzberger
living massivity

noA
a concrete abstraction (texture)

Paul Rudolph
munificent cheapness



concrete blocks exploration

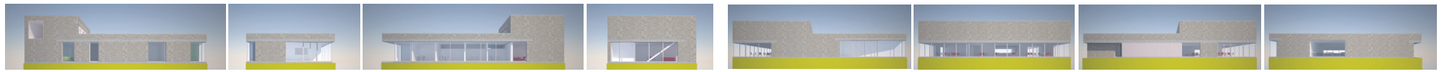
how to solve diagonals ?

need for lintels?

cut blocks diagonally?

flemish stepped gable?

obey the nature of the blocks



Administration east

north

west

south

Restaurant north

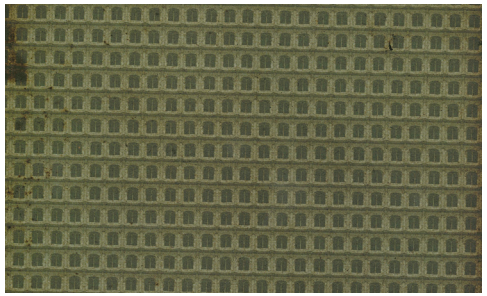
east

south

west

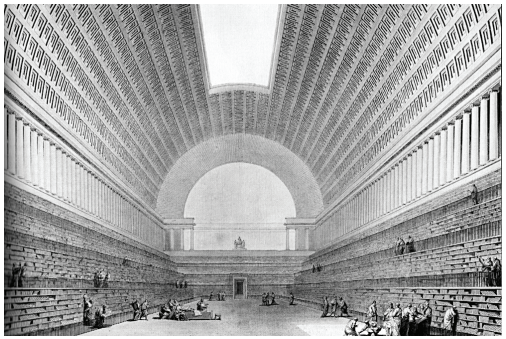
E2
Language Through Materiality - Discovery process

Naoshima Ferry Terminal
Sanaa, 2006



Muraille
Jean-François Thérère Prieur , ± 1890

House in Tavole
Herzog & De Meuron , 1985



Deuxième projet pour la Bibliotheque du Roi
Louis-Etienne Boullée, 1785

Textures are abstract patterns. Architectural materialities have the potential to let these patterns coincide with constructive realities. Disregarding texturless architectures (but do they exist?), when a texture emerges, there is always a phenomenon of infinite multiplication of a small element, which dissolves in the unicity of the whole, like sand, grass or tiles.

The Naoshima Ferry Terminal by Sanaa and the photographic experiment “Muraille” By Prieur are different ways of adressing this possibility. In Naoshima, the waves of the steel decks create a sense of continuity across the whole roof. The size and modulation of each deck disappears in favor of their texture, though they are essentially interlinked. In the case of Muraille, one window is repeated infinitely, giving birth to a new, englobing entity.

There are also composite textures, in which two or more elements meld together in a coherent system. The House in Toledo by Herzog & De Meuron combines concrete frames with stone and metallic frames for the openings. The Bibliothèque du Roi by Boullée has various juxtaposed registers : one of books and shelves, which is composite, one of such a density of columns that they meld together, and last, a vault composed of identical square cassettes.

Péronnes : Material Grammar of the concrete blocks

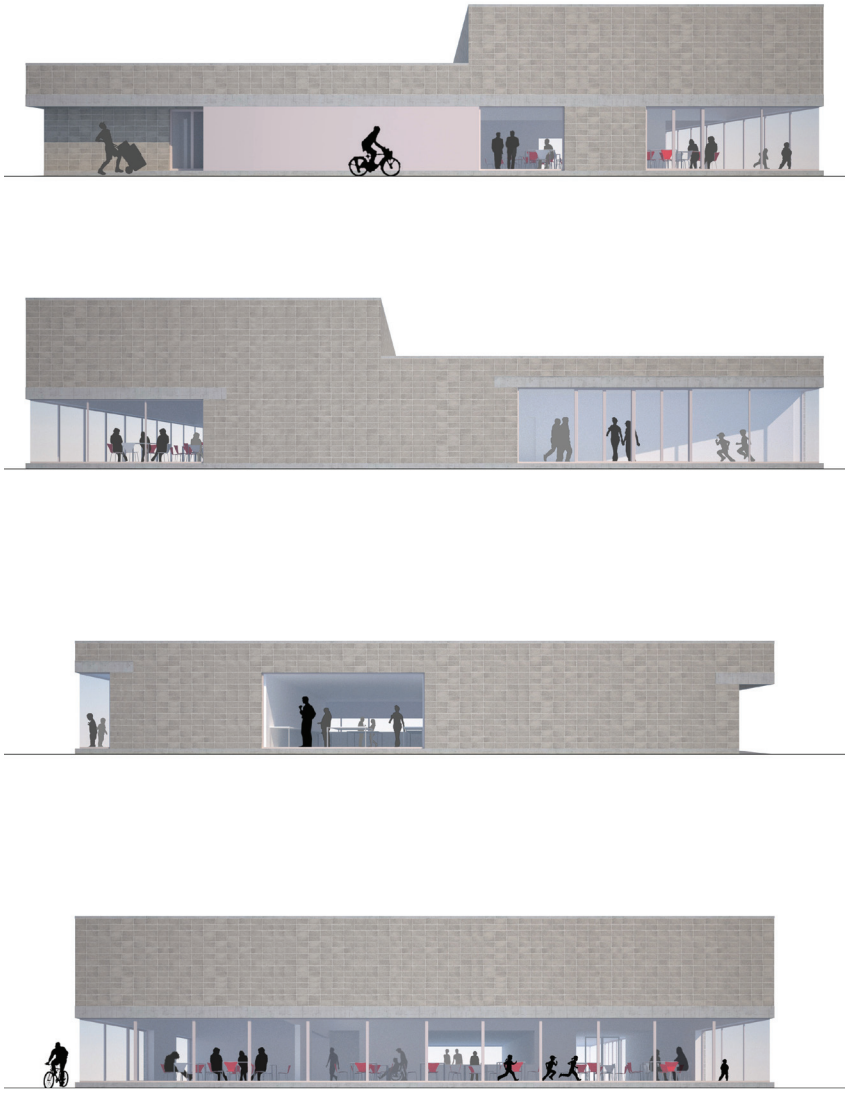
The 9cm thick concrete blocks are modulated on a base of 40 * 20 cm including joints.

They are lay-out in tiles, with continuous vertical and horizontal joints.

Walls are covered by standard concrete coping stones (5cm), placed in the same plane as the concrete block, with a signle slope towards the interior.

Long prefabricated concrete lintels (height 40cm = 2 blocks) are placed upon windows and under cantilevers. They exceed theses openings by two blocks (80cm). The lowest blocks are placed on large prefabricated concrete plints.

At the corners, the small side of blocks (9cm) are visible.



Péronnes - restaurant elevations
2010

0 4 8m

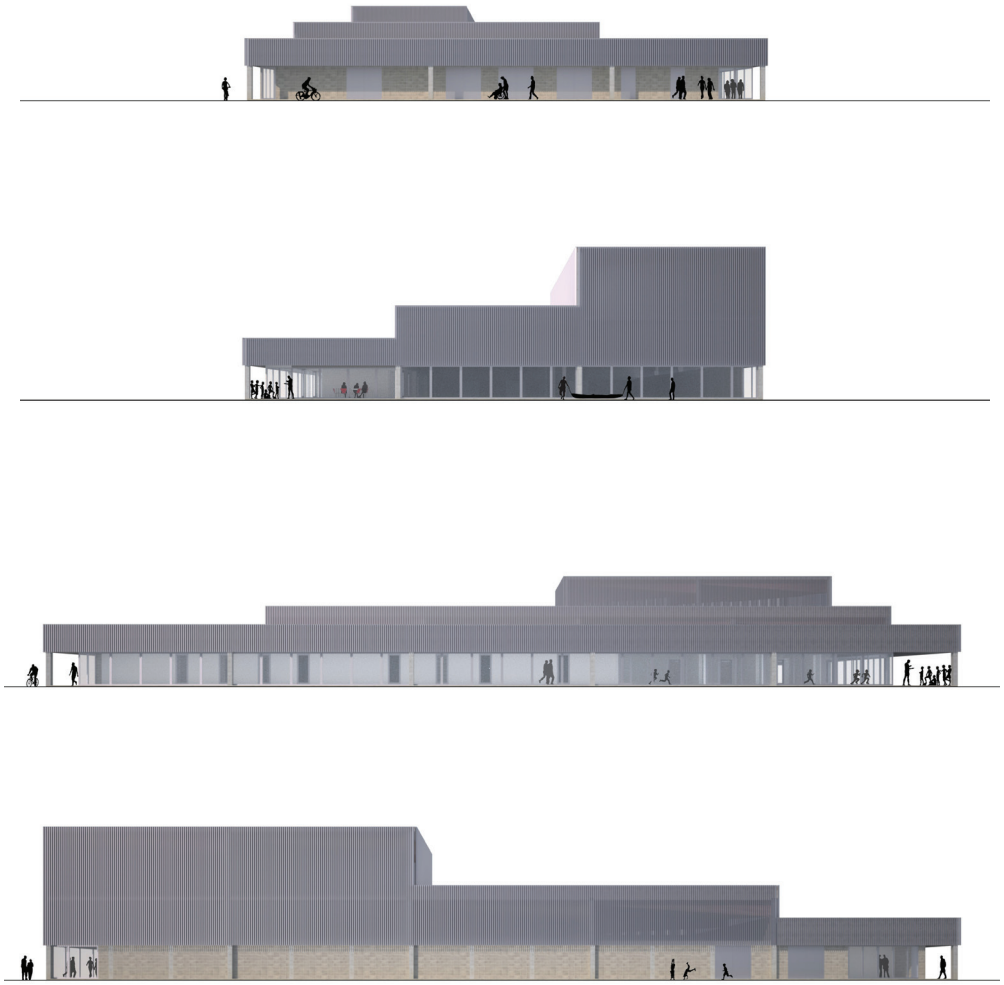
E4
Language through Materiality - Praxeme analyse (1)

Péronnes : Material Grammar of an open aluminium cladding

The almost entire sailing school is covered with vertical aluminium strips folded in S-shape.

They are placed as a simple cladding in front of closed facades, as an open, ventilated cladding in front of open facades not subject to rainwater, and are doubled with corrugated polycarbonate sheets where diagonal rain needs to be kept out.

The lay-out is detailed in order to absorb pivotating doors for the sailboats, and to absorb seamlessly the corners.



Péronnes - sailing school elevations
2010

0 10 20m

Gribaumont (2009)
waterproof membrane

Deinze (2012)
inversed curtain wall
glass, steel, roller blinds

a. absence of texture

In Gribaumont (2009), we used a black EPDM/SBS waterproof membrane as roof and facade cladding. This is a deliberate choice for an absence of cladding. However, it became a texture in itself, because we had to modulate the slabs, to resolve the patches for the corners and the joints with the windows. So, this apparent absence of skin was in fact a quite usual “material language” issue.

b. geometricalization

In Deinze (2012), The facades are based upon a grid with a double modulation. This grid corresponds with stiffeners. The space between the stiffeners is filled with diagonal steel sheets (scale-like) in different size and orientations, or with windows, and where needed with sunscreens. The texture is obtained by geometricalization through the raster, that allows a variety of fillings.

Jassogne (2005)
open wood cladding (the doors)

House in Etterbeek (2007)
*10*10 cm tiling on insulation*

c. texture as absorbent

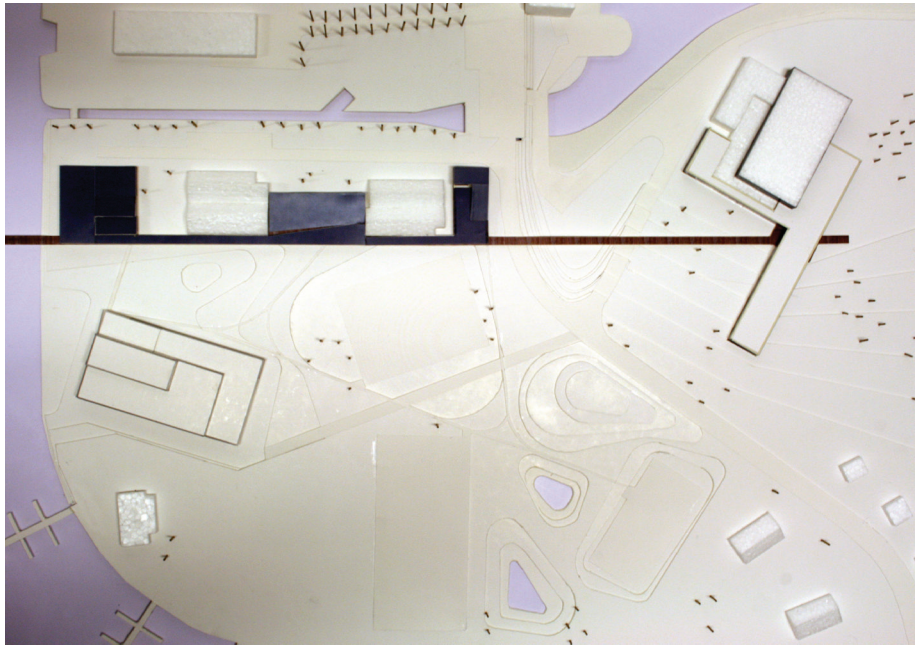
The gable facade of Jassogne (2005), is an abstract cladding of spaced wooden lattices. In realty, it is a large double door that fits the shape of the facade, but this is absolutely invisible, except for the lock. The texture absorbs the elements that would normally interrupt it.

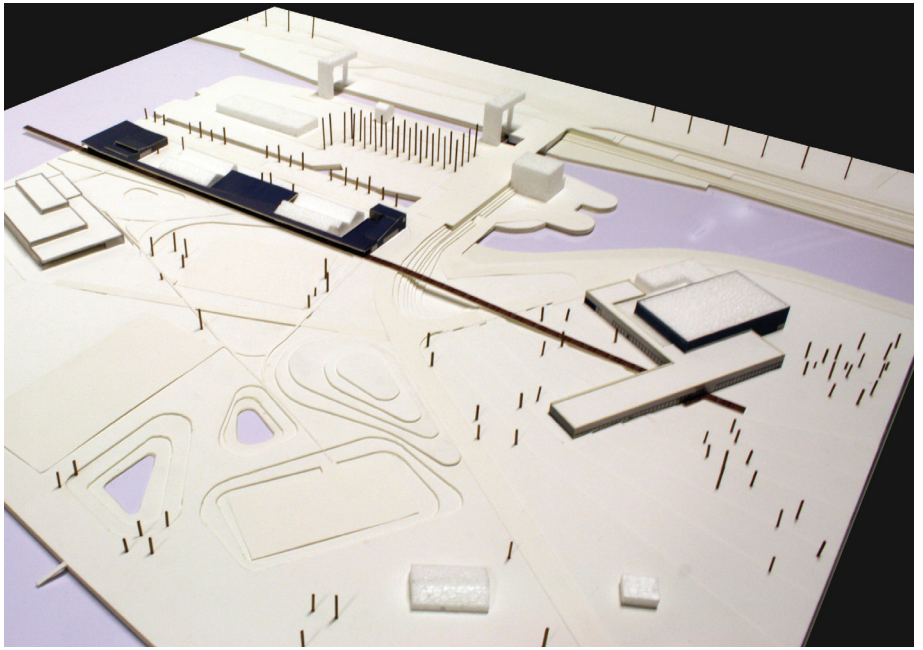
d.pattern products

The house extension in Etterbeek (2007) is tiled. The use of a product inducing a pattern, almost like a wallpaper. This in return has strong influence on the dimensions and lay-out of all constructive elements, openings, overall dimensions, etc.

e. composed texture

In Péronnes (2009), concrete blocks and prefabricated concrete elements are perfectly arranged and form a coherent system and a composed texture.





Péronnes
model (2009) - foam cardboard, printed plexiglass
scale 1/500

E6
Péronnes - Model

The strong presence of the water and the alluvial landscape of the Scheldt is highly determined by the fluvial infrastructure of the Nimy-Blaton waterway. On the site of the sailing center, some buildings and outdoor infrastructure had to be maintained, other buildings to be destroyed, and new infrastructure built.

A long pier is introduced, floating over this characteristic alluvial landscape and ecosystem. The pier is reminiscent of the linear human inscription in the landscape, and distributes all functions in a flexible way.

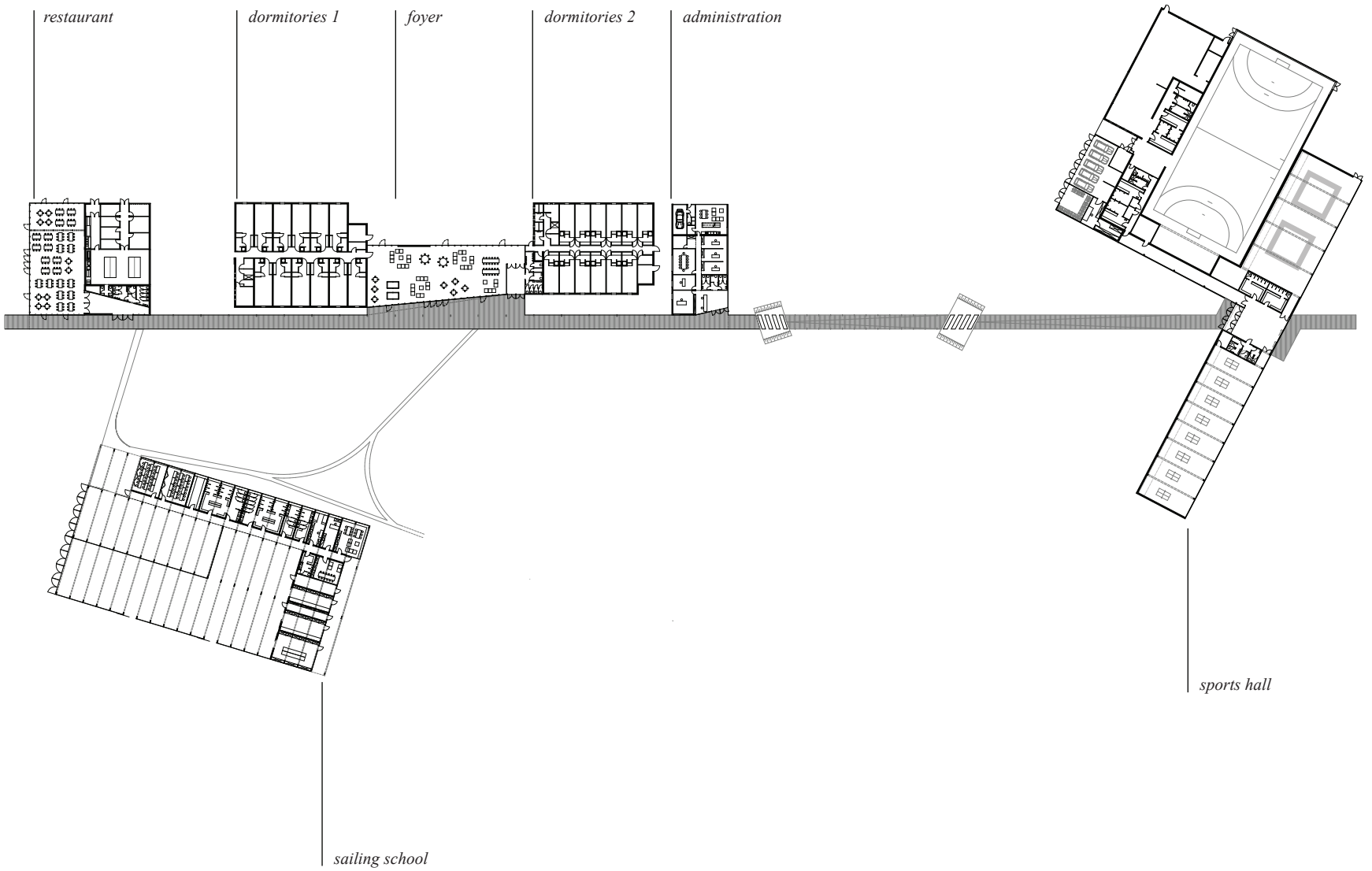
The buildings are disseminated along the pier, while the landscape develops freely. The standalone boathouse itself is a rather outdoor building, and is placed in the landscape.

This concept doesn't tell much about the buildings themselves. The architecture is expressed as horizontally as possible in order to blend in the landscape. Extensive glazing surfaces of reduced height intensify the relation to the water and lanscape, enhancing the feeling of inwardness in the buildings while keeping a strong panoramical visual relation to the outside. There is some kind of humility present in this architecture.

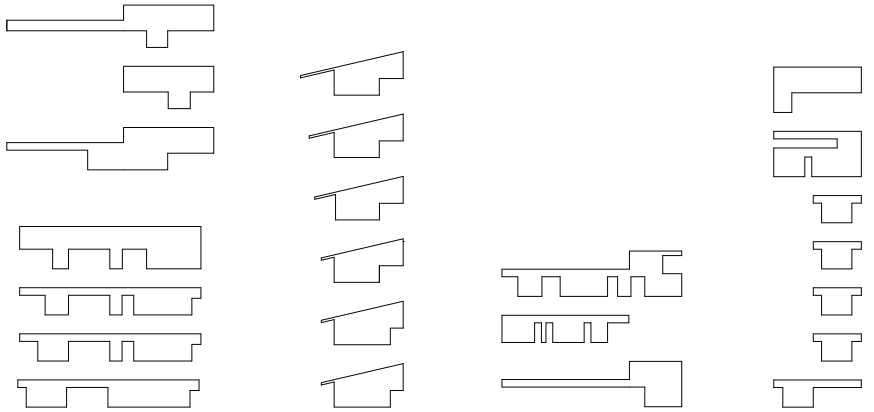
Péronnes
A straight pier organizing the landscape

E8
Péronnes - Context

0 100 200m



E9
Péronnes - Space (plan)



a
restaurant

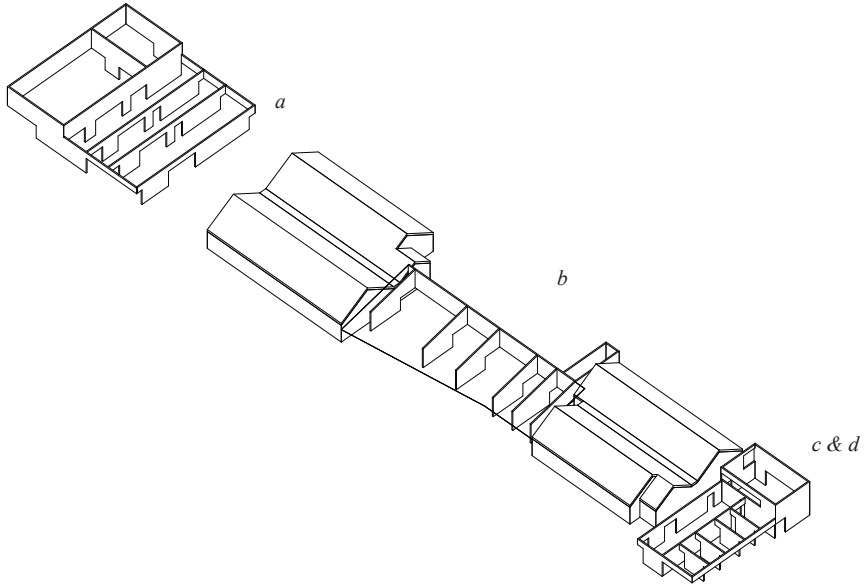
b
foyer

c
administration

d
administration

in order to maximize the panoramic relationship from the interior to the landscape, the exterior skin is freed from structural elements standing in front of the windows. There are absolutely no columns.

A system of concrete walls and cantilevers is developed. This principle allows the shape of the structural walls to vary widely. The flexibility of the structural principle is ensured by its morphing from one shape into another.



Péronnes
structural axonometry of the dormitories, restaurant and administration

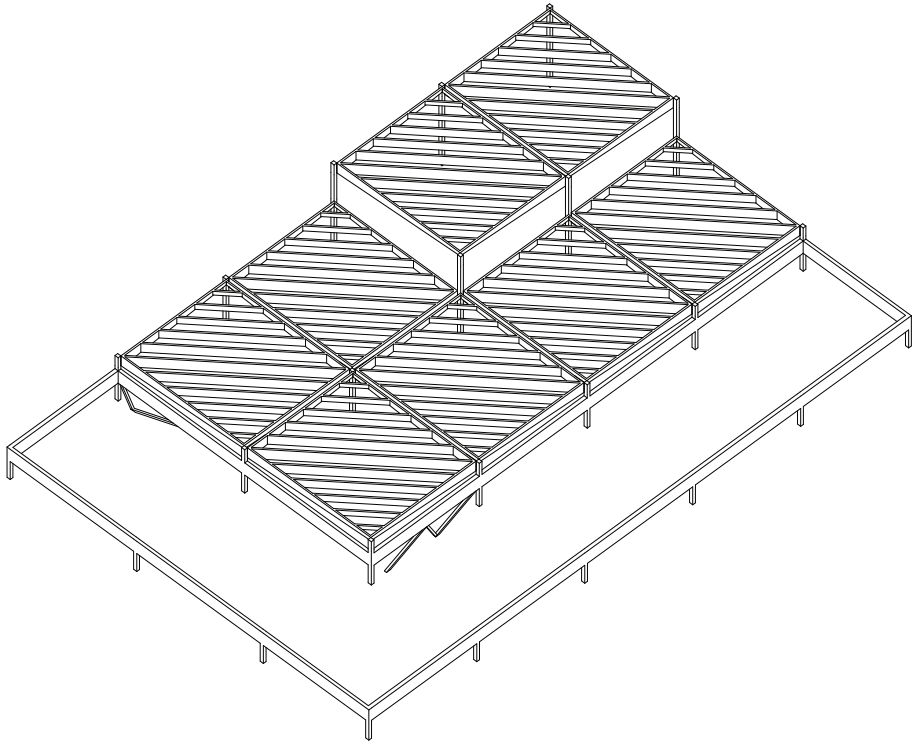
A strict 12 by 12 meter raster of prefabricated concrete columns provides a total flexibility of space.

The roofs of the lower parts are simple concrete slabs and prefabricated concrete beams. Two Z-shaped concrete bracings ensure horizontal stability.

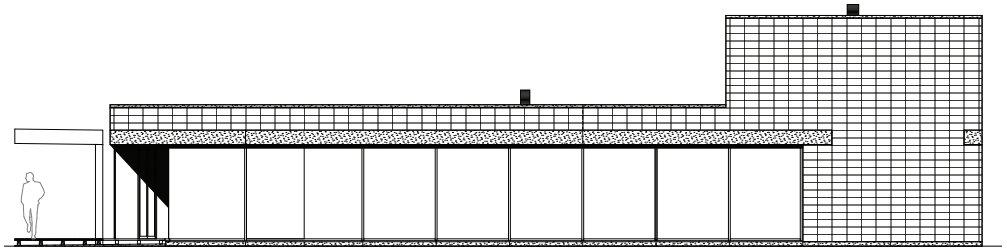
The heigher spaces, which are devoted to the storage and maintenance of the sailboats, are covered with timber frames containing diagonally placed timber beams. The more larger elements are also higher than the smaller beams, that support less load. The frame follows this variation in height and consists of trapezoidal elements.

The space between the frames corresponds the size of the columns and lets zenithal light in the storage room.

This structural principle is highly designed, and looks constraining. It is true that all squares are indentical, but a planar deformation of the plan is possible without altering the quality of the principle. In this way, it is a similar approach to the concrete walls of the administration buildings.



Péronnes
structural axonometry of the sailing school



Péronnes - elevation (2011)

0 2 4 m

E11
Péronnes - Materiality

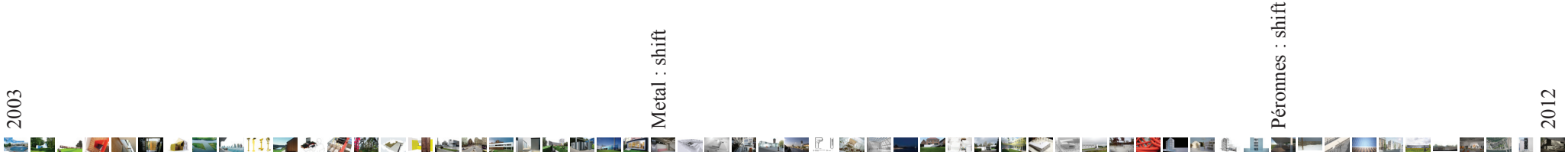
April 2011

During GRC EUR in April 2011, after evoking the possibility to understand the projects inside a dual framework, between metaphorical specificity and spatial genericity, I felt that the project in Péronnes could not satisfactorily be grasped by this model. The dimension of the materiality appeared here to be very important.

The framework evolved into a layered one, in which the different praxemes can be simultaneously present without conflict. A project can be defined by a strong metaphorical specificity, a generic spatiality and a refined material language (I called it critical materiality at the time, referring to critical regionalism).

This model was accompanied by different considerations :

The vertigo is the result of a simple and specific hypothese (it is really a metaphor of an industrial skin), that was transposed directly into reality in a specific way. This may also be the case for other simple projects from the period.
Philippeville is the result of a generic hypothese (the metaphor concerns the abstract principles of isotropy and porosity), and this hypothese is submitted to a process of some length to be transposed in reality.
For Péronnes, the same phenomenon happens regarding materiality.



hypothese projects

genericity projects

critical materiality

simple

complex (a set of rooms)

very complex (a set of buildings)

hypothese : a concrete metaphor

generic spatial principles

generic material principles

direct transposition, specific

processed, generic

processed, generic

E12
Additive layeredness

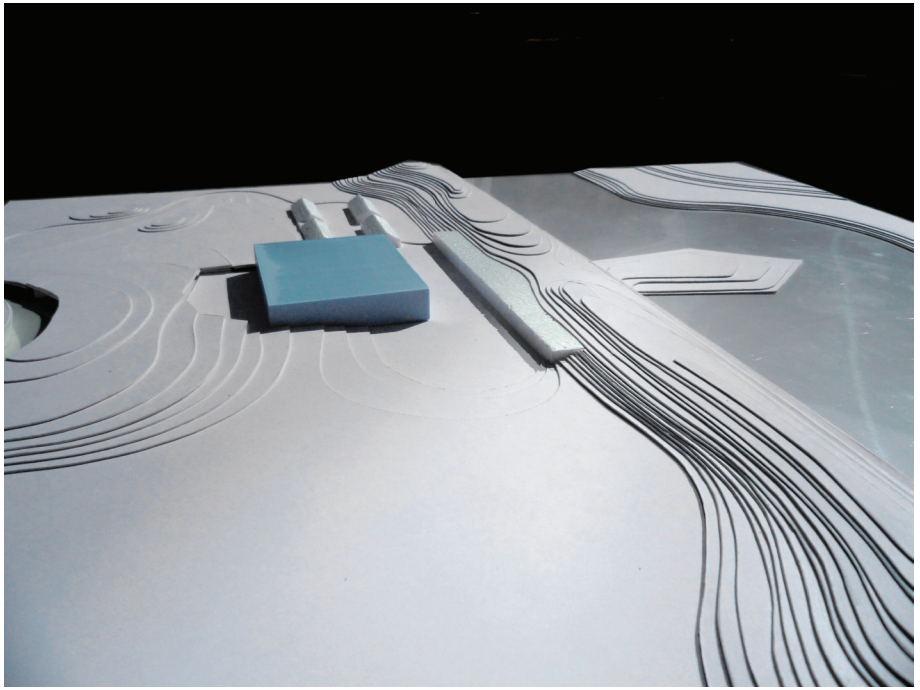
F : FORT VI - CONTEXTUAL AUTONOMY

Autonomy or self sufficiency of an architectural design resides in its apparent formal independence from contextual constraints. However, autonomy does not mean solipsistic solitude, an autistic lack of interest in the context, or even a superiority complex towards the world.

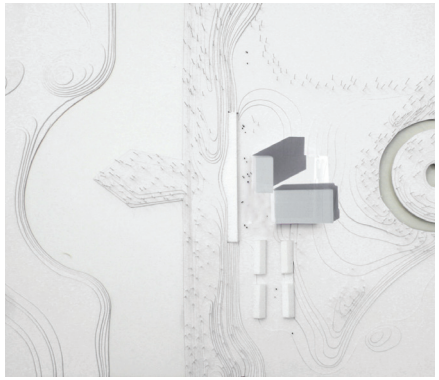
Indeed, the capacity of a system to develop without contextual coercion can be achieved through its careful disposition in the context. Rather than searching for how architecture reacts to the context, the question becomes: what does it do to the context?

Referring to Francis Ponge and Ad Rheinhardt, one could state : being more a thing than a too incontestably manmade object, the autonomous design seems to be shapeless, formless, directionless, timeless, changeless, relationless, disinterested.

Perhaps the idea is that the building seems to have been there BEFORE its context, and that the context evolved around it. It is a kind of retroactivity.



F1.
Contextual Autonomy



a

b

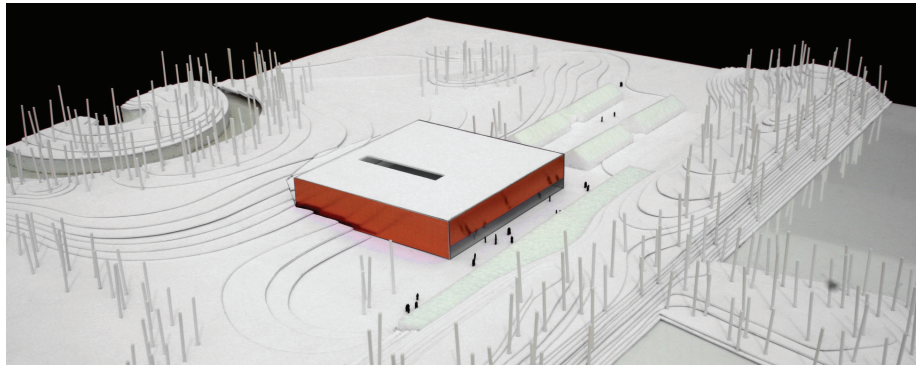
c

d

The sports school is to be placed in the middle of a XIXth century fortress. We made a series of small models to investigate different possibilities.

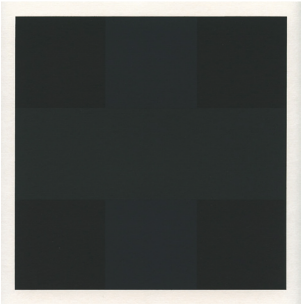
A first tentative move divided the programm in two parts, one for the school rooms, and one for the sports halls. This created identifiable public spaces and articulated the building on the existing constructions. However, this seemed not correct from a heritage point of view, because it modified substantially the quality of the outdoor spaces and the relation to the existing buildings.

We attempted a maximal footprint, fitting the strange rounded shape of the available plot, then also a maximal compaction of the program into a small, rectangular box. Last, the project evolved into a perfectly square footprint : by doing so, it seemingly became autonomous from the context, like a “fremdkorper”, thus displacing a possible mutual influence of project and site towards a relationship of juxtaposition.



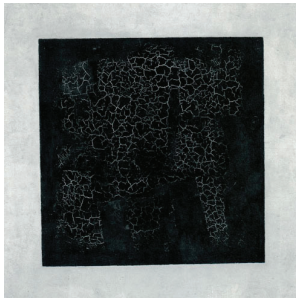
F2
Contextual Autonomy - Discovery process

Stanley Kubrick
2001 A space Odyssey, 1968

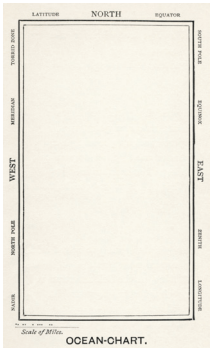


Ad Rheinhard
Black Square, 1960-1965

Stadium de Vitrolles
R. Ricciotti, 2000



Black Square
K.Malevitch, 1915



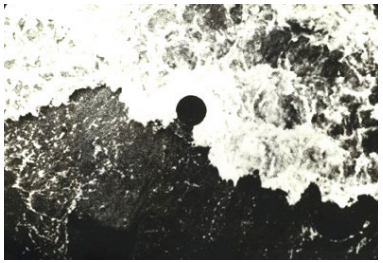
Lewis Carroll
Bellman's Chart
The Hunting of the Snark, 1874

Bas Princen
Cooling Plant, Dubai, 2009

Wall
T. Smith, 1964

Peter Zumthor
Serpentine Pavilion, 2011

Zollverein Essen
Sanaa, 2006



A hole in the sea 3
B. Flanagan, 1967-1970

Signal Box
Herzog & De Meuron, 1994

Robert Fludd,
from Tractatus 1 lib 1, 1617

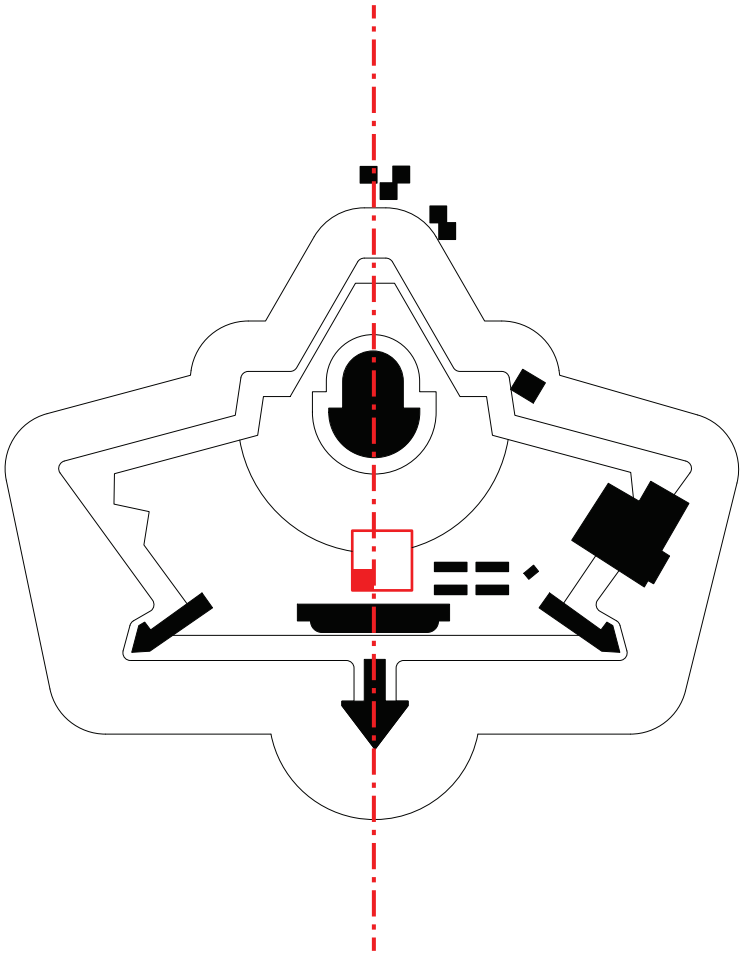
I am undeniably fascinated by the aggressive but restrained evidence of the thing "that is", instead of addressing understanding. It questions the world, instead of providing articulated answers. Also, a fascination for the absolutely infinite potential of the white page and the black square.

At first sight, the square footprint seems to seek total independence from the context of the ancient Fort. This is partially true.

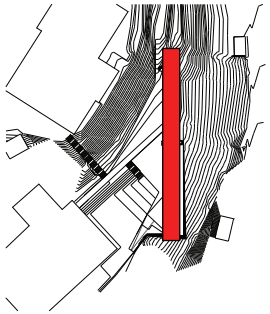
However, the square is positioned carefully in the fort in order to avoid conflictual or residual spaces. The main symmetry axis of the fort runs through the sports school. The plan is oriented according to the induced cartesian axes, but it is slightly displaced to the right, to fit the internal organization. Larger spaces appear on the right of the axis for the sports hall. On the left, the entrance, the cafetaria (in red), the classrooms and the smaller fitness rooms are positioned along the main circulation that correspond perfectly the main axis of the fort.

Despite the apparent mutism of the square footprint materialized as a glass box, the position of the building in the context, the internal organization, the relationships with existing buildings merge into one reality.

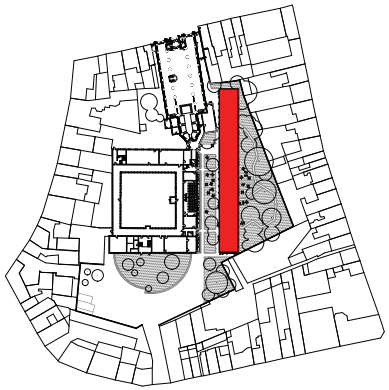
“I didn’t do it, it just … happened. The pole, the bow, the arrow, are one, not many things.”
D.Carradine as Caine in Kung-Fu, The Praying Mantis Kills, March 22, 1973



F4
Contextual Autonomy - Praxeme Analyse



Neufchâteau (2009)
AgwA

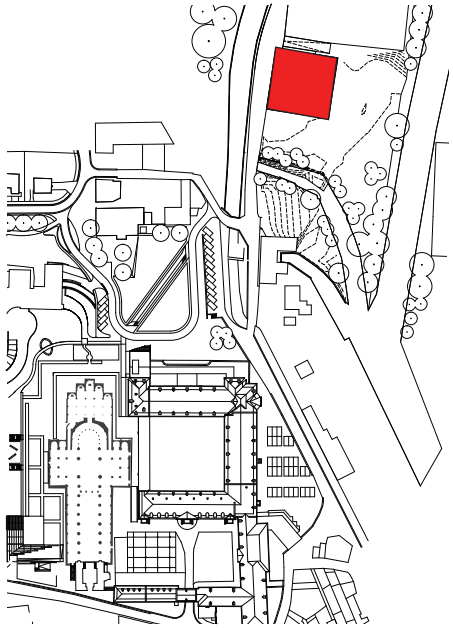


Sint Lucas (2010)
AgwA

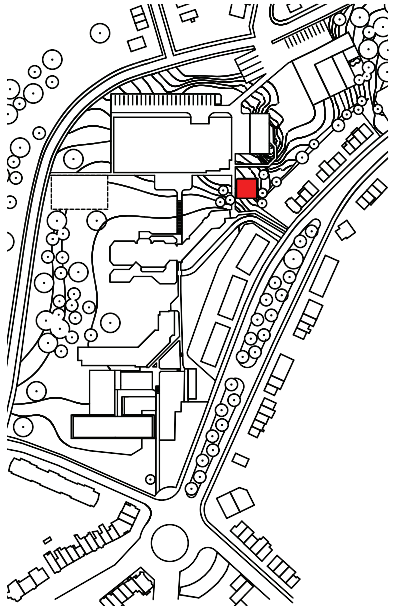
In the sports center in Neufchâteau, a 100m long and two stories high dormitory is proposed in the wooded hill. It is placed diagonally in regard to existing buildings, but plays with the slope, detaches from the ground, organizes space, and indicates the start of a path in the forest.

For the competition for a pavilion in the gardens of Sint Lucas architecture school in Ghent, one of the ambitions of the project was to leave the garden as empty as possible. We proposed to place a linear hall, in the sense of the medieval marketplaces, that would define an “urban space” towards the school, and a protected garden along the folded brick walls of the neighbours.

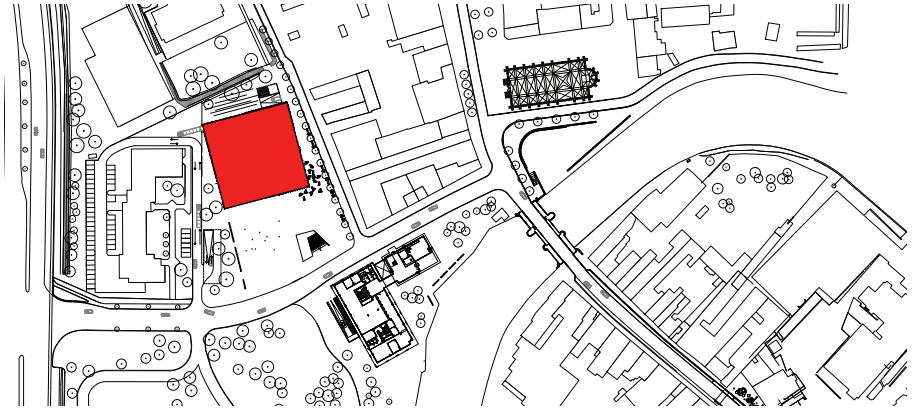
Stavelot, Riva Bella and Deinze are typical square footprints reacting to complex contexts. The square of the Stavelot cultural center might be a distant echo of the huge abbey in the city center. The primary school in riva Bella may be a counterpoint to the gridded and 45° rotated masterplan of the campus. Deinze cultural center is positioned in order to define a clear public space that responds to the similar spaces of the administrative center, the church, and other public buildings along the river.



Stavelot (2009)
AgwA + Artau



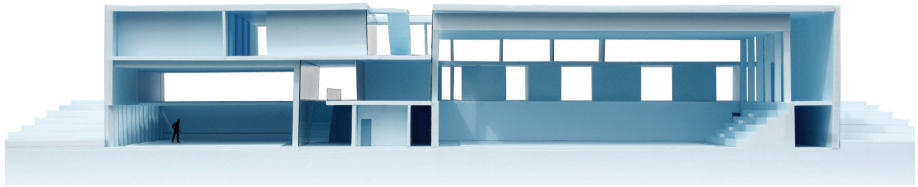
Riva Bella (2009)
AgwA

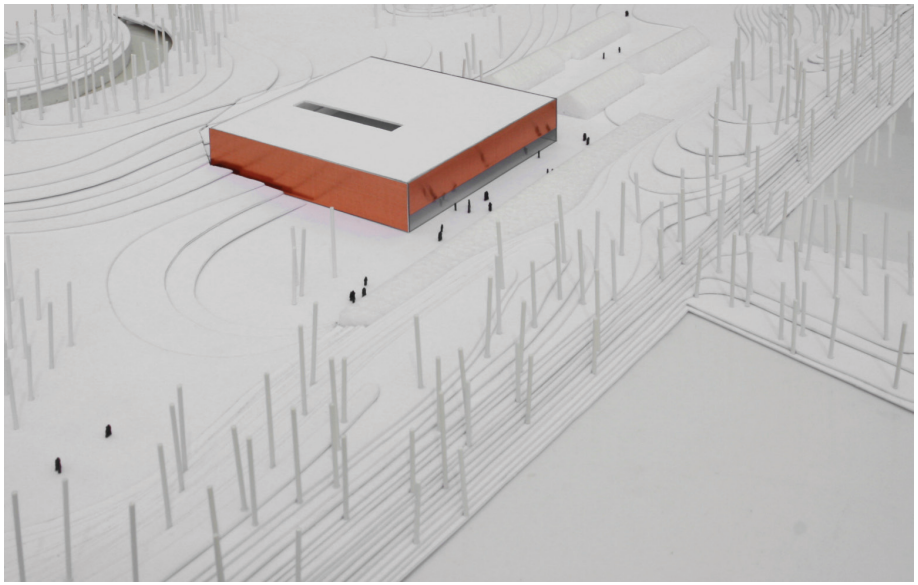


Deinze (2012)
AgwA + TTAS

F5
Contextual Autonomy - Resonance

0 50 100m





Fort VI
model 1 (2010) - foam cardboard, printed plexiglass - scale 1/500
model 2 (2010) - styrofoam - scale 1/100

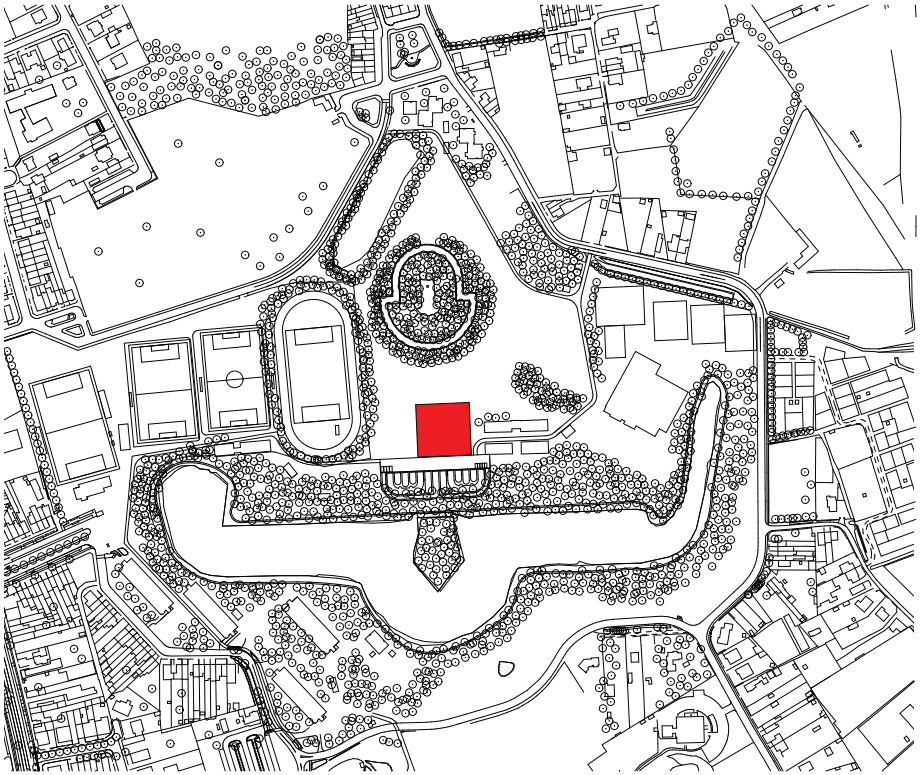
F6
Fort VI - Models

The school is an abstract, mysterious box-shaped “fremdkörper” in the fort. Clad with transparent and reflective bronze glass this is a treasure box, in which all spaces are carefully arranged. The compact setting and the absolut transparency on the inside create surprising and dramatic relations between the school, the sports facilities and the public spaces.

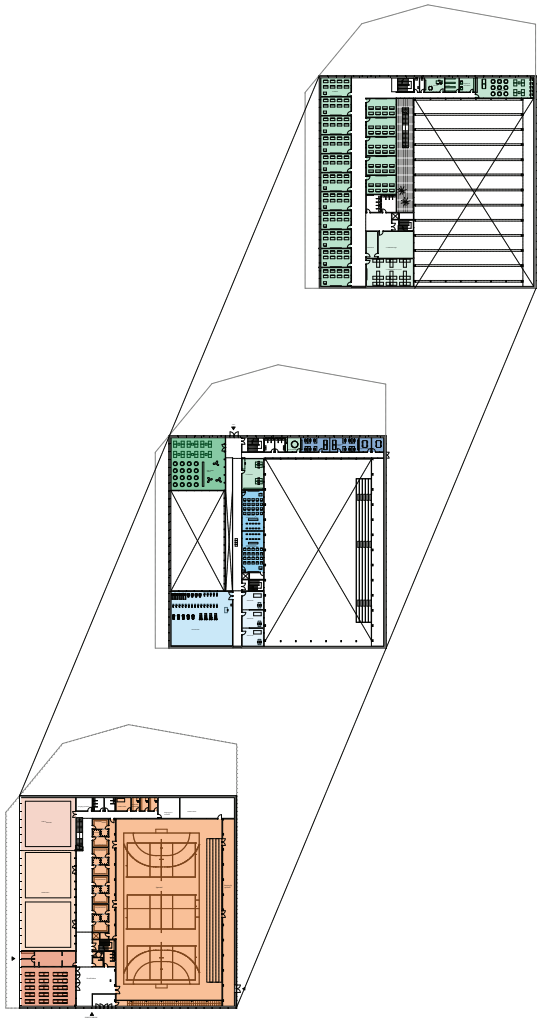
The reflective glass mirrors the fort’s buildings and landscape, adding new levels of symmetry and conferring a sense of spatial continuity through the building.

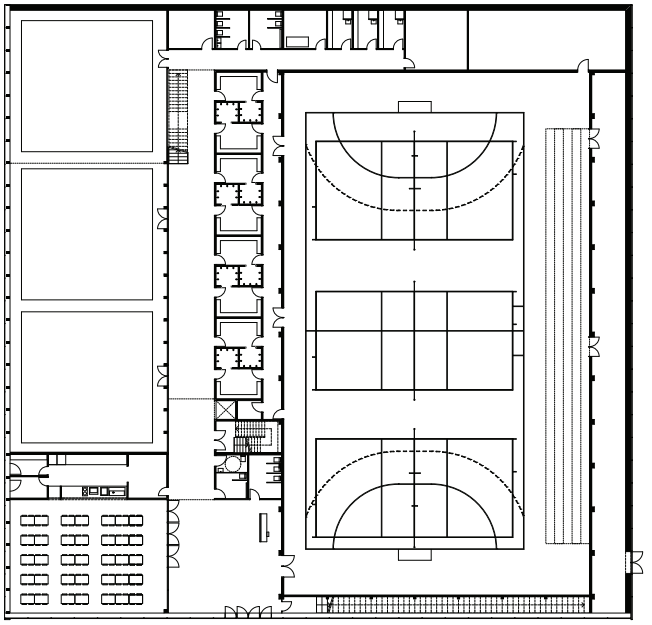
Ringroad (Houston), B. Princen, 2005

As Fort VI is one of the most altered forts from Antwerp's ancient military defense line, one could even argue that the precise positioning of the square sports school in function of its original plan is a way to reinforce its presence, despite the progressive superposition of new layers and uses to the landscape.



F8
Fort VI - Context





0 5 10 m

F9
Fort VI - Space (plan)

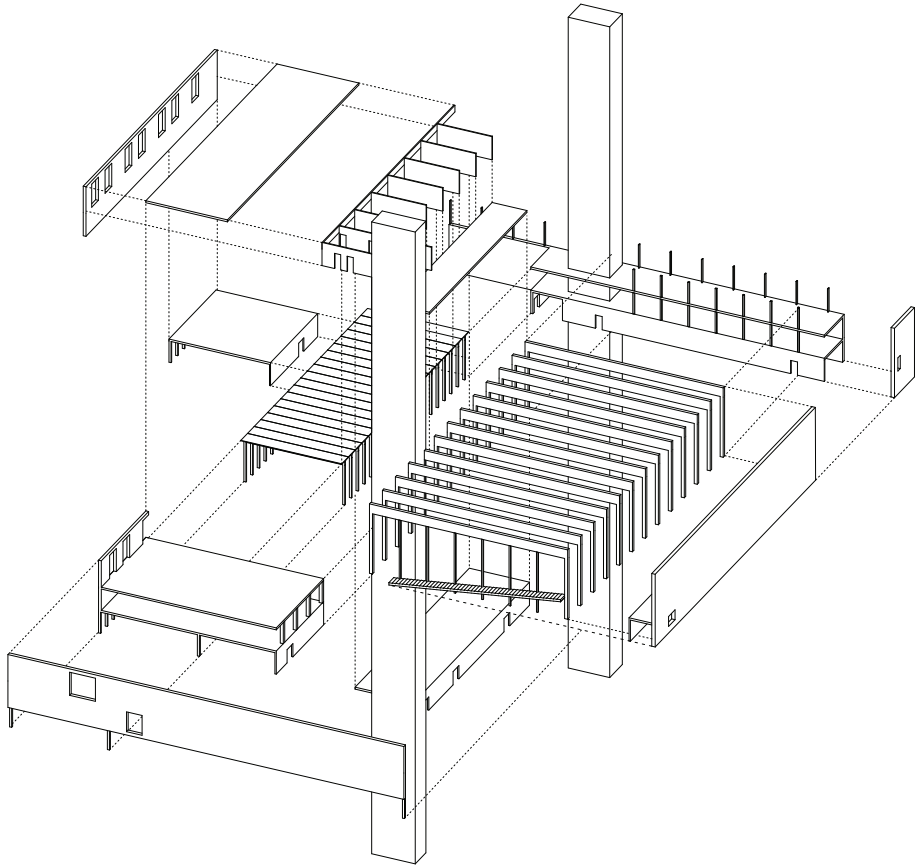
It is a three dimensional spatial puzzle. The sports hall covers three levels, and the dojo two. Vertical and horizontal relationships appear between interior spaces, as rooms hang over others.

However, this does not mean a complete obsolescence of the traditional layeredness of levels. Rather, some meaningful exceptions “glue” the levels into an indivisble whole.

The challenge to provide a structure for a three-dimensional puzzle is that the arrangement of spaces doesn't proceed from an inherent constructive logic. Also, spaces vary widely in length, width and height.

Concrete can be declined in various solutions according to different structural typologies. We decided to take advantage of the diversity of situations to implement a wide range of structural solutions, but all of them in concrete.

It is a principle of limited collection, with no other rule than its limitation. Its a kind of uniform and organized disorder (or is it disordered uniformity?).



F10
Fort VI - Structure

A completely uniform curtain wall covers the building. Glass is variably colorlesss, bronze and opaque, according to the situation. Details are to be designed to absorb the thickness of the slabs, roofs, walls.

The modulation introduced by the uniformity of the curtain wall influences the structure. As it were, a virtual grid is superimposed on plans with the axes of the curtain wall, imposing the limits for structural elements and openings. Then again some structural elements, like a slope nearby the entrance, are completely independent from this skin.

November 2011

During GRC EU in November 2011, I recapitulated the evolution of the timeline of project, from heterogeneity to dual model, and then to an additive layered model.

Then, as I had started to document systematically documents and references, I rediscoverd an image that I had made at the very beginning of my research, in 2008.

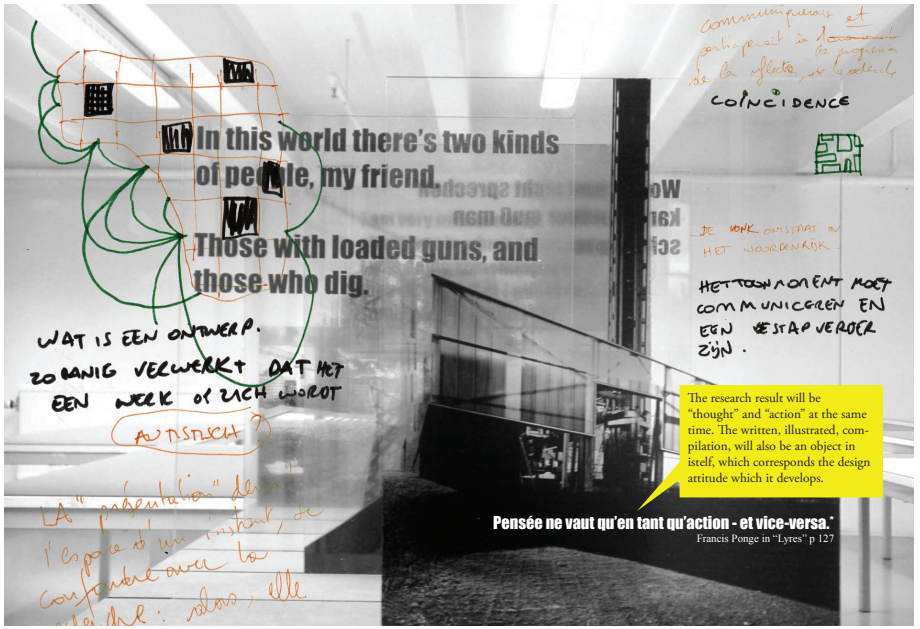
It is quite complex. It is based upon a picture of a small installation I made for the “by design for design 08” exhibition at Sint Lucas, consisting of plexiglass sheet with prints of images and pictures of projects on the one hand, and quotes evoking domains of interests on the other hand, resulting in a blurred, merged whole. Then, for the purpose of the publication, I superposed two pages from my sketchbook, containing reflections about a possible coincidence of the output of research with the practice itself, spatial schemes for a project (I think it is Philippeville), a quote of a participant of the exhibition stating that “the spark originates in the verbal world”. Last, I added a quote of Francis Ponge, sounding “Pensée ne vaut qu’en tant qu’action - et vice-versa.” (Ponge can be considered a kind of muse to my work). Later, I added a yellow commenting balloon. Maybe, in the end, it could be a document about simulateity, about layeredness.

When I was telling stories of genericity, of stepping back, of black squares and autonomy, as if I wanted to minimize each and every arbitrary choice, this image was postulating the contrary : what if, instead of avoiding all choices, the simultaneity of all affirmations created a kind of stabilizing blur? What if we consider projects as intrinsically layered realities?

Indeed, some projects are literally layered : think of Vertigo with its translucent skin superposed to a pragmatist structure.

Then also, I wondered if Fort VI could be considered a overarching project, in which all the discovered praxemes were present without domination of one upon the others.

And there the re-exploration of Fort VI began.

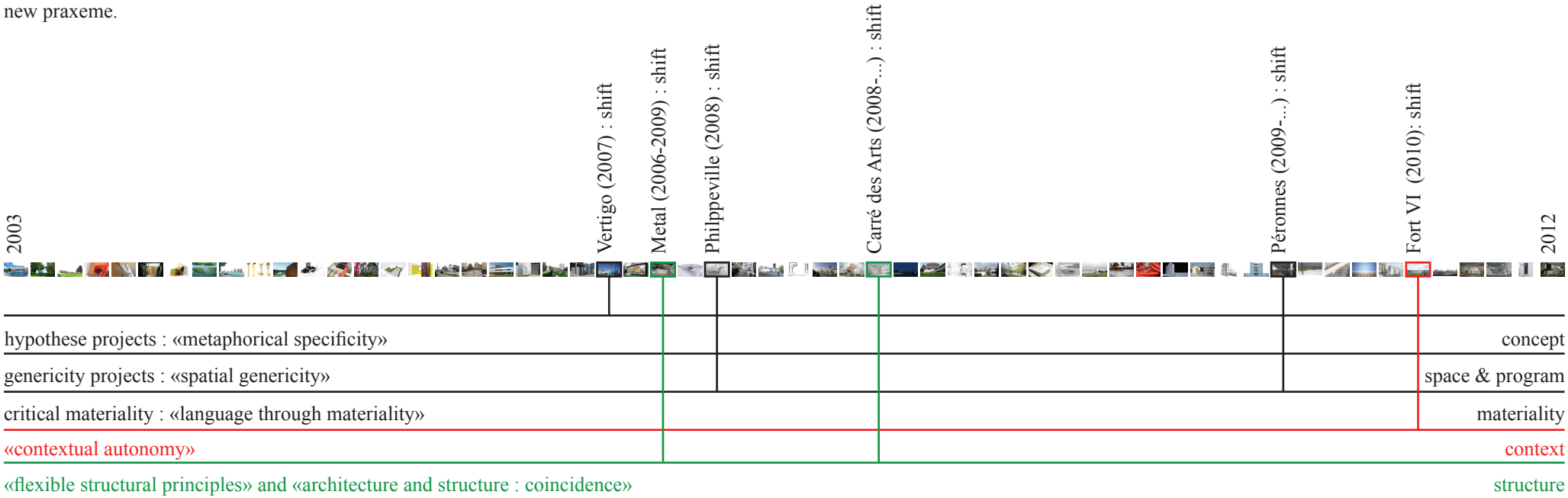


Layered image, 2008-2009

F12
Retroactive layeredness (1)

November 2012

1.
While exploring Fort VI with the explicit agenda of checking whether it could be considered a layered reality fuelled by the three praxemes discovered (hypothese formulation, genericity, cirtical materiality), I first wanted to document the project thoroughly, starting with its situation in the context. Looking at this plan, I couldn't but see the similarity with other projects : this way of locating precisely a simple, even basic shape (often a rectangle, a line, a square) in the landscape. Here we had a new praxeme.



2.
Then, the different praxemes were analyzed and referenced (inside and outside the practice).
Strangely enough, the considerations about structure had not appeared as praxemes, and I corrected this. It was perhaps because at the time, I evoked Metal in terms of shift, and the Carré des Arts in terms of process, and did not really focus on the praxemes at stake.
Here we had a "revised operational dictionnary".

3.
The shifts expanded to the moments of discovery of praxemes and fundamental processes. They also changed in nature : they meant more moments of transformation of the practice by becoming conscious of methods, processes and praxemes, rather than a radical change in the nature of the practice.

4.
Last, I noticed that the praxemes addressed the fundamental dimensions of architectural projects : concept (When did the idea of "concept" appear in architecture?), space, structure, materiality and context. Though it was not intended at first, it seemed that a first step had been complete in the development of a coherent design attitude with some degree of completeness, and it formed a possible grid of architectural analysis for the projects